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Scholars not schools! An evaluation of the success of the voluntary agencies in encouraging the development of schooling in the Borough of Hanley prior to the establishment of the first school board.

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ABSTRACT

This study is an examination of the nature and extent of schooling in the borough of Hanley at the time of the census in 1871. Making use of the census returns, data contained in the rate books for the borough, and individual school records, it examines the patterns of school provision, enrolment, and attendance which prevailed at that time. In the process the achievements of the voluntary agencies, which controlled schooling in Hanley, are assessed, as are the problems which confronted the first school board, when it took office in December, 1870. Contemporary views of these problems and achievements are presented and an attempt is made to distinguish between propaganda and truth.

Subjective assessments of schooling in North Staffordshire are plentiful, particularly in a decade which began with the extension of factory legislation into the area and, with it, the half time system; and ended with the passing of the Elementary Education Act and the establishment of the first school boards. A degree of objectivity was attempted at the time, usually by introducing statistical evidence but the statistics were themselves heavily processed and often formed part of a propaganda exercise. By analysing crude statistics from the census returns, the rate books and surviving school lists, the accuracy of contemporary views is assessed and some major influences on school enrolment and attendance are identified. The method used is multiple regression which allows the analysis of the relationship between a dependent variable (school enrolment or attendance) and a group of independent variables.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

This examination of the state of elementary education in the North Staffordshire pottery town of Hanley in 1870, the year of the establishment of the first school board there, has its origins in an earlier study of school attendance in the nearby mining village of Silverdale. [1] A survey of the literature available at that time revealed that, while most standard histories included some reference to school attendance, remarkably few detailed studies had been carried out either nationally or at a local level. Furthermore, most of the work which had been done was based on official statistics and, what is perhaps more important, on official statistics presented in a processed or semi-processed form. The dangers of this dependence are obvious. Government departments - and that includes the Department of Education - were highly selective in what they published and it is always possible that their statistics were designed to promote political campaigns rather than to portray a situation which actually existed. Certainly the picture which emerges from the education statistics published during the second half of the nineteeth century is remarkably consistent and apparently convincing.

By 1870 the elementary education system in England and Wales was not only inappropriate for the world's leading industrial nation, it was totally unacceptable in any circumstances. At least half of the nation's children appeared to be untouched by the existing system of education and actual attendance on any given day was generally acknowledged to represent little

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1. Nixon, W. B., Factors influencing absenteeism at two elementary schools in Silverdale during the period 1862 - 1900. (unpublished dissertation, University of Keele. 1975)

more than one third of the potential school population. This was, of course, an indictment of the denominational agencies which operated the voluntary system, and the Elementary Education Act of that year sought to remedy the situation. This act - one of the great landmarks in the history of education in Britain - was an unashamed compromise and , as a result, it lived up to few of the expectations placed upon it. But it did establish an alternative secular, rate-funded system of schooling and this paved the way for a dramatic improvement in levels of attendance as first direct compulsion was introduced and finally education was made free. As a result, by the end of the century elementary schooling had become universal and average attendances of over ninety percent were common place in most schools. This was the ultimate vindication of Forster's Act and it appears to represent a success story on a scale which is beyond challenge.

But this conventional picture is open to challenge. Professor E. G. West, for example, questioned the validity of many of the national statistics used so effectively to condemn the voluntary system and to promote the new act. [1] He suggests that they were based on an unreasonable estimate of the potential school population - an estimate derived from a definition of school age which was so broad that even today, more than one hundred years later, compulsory schooling is not expected of all children in this age group. Furthermore Professor West claims that, by deliberately excluding from its calculations a large number of schools which were designated by the department as inefficient, the situation was made

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1. West, E. G., Education and the Industrial Revolution. Batsford, London, 1975.

to appear much worse than it really was. If all schools were included in the calculations then schooling would be seen to be much more prevalent than is suggested by the published statistics. Since returns are rarely available for schools not under inspection this hypothesis can be tested only by detailed studies of enrolment at schools in individual boroughs and parishes throughout England and Wales.

Histories of schools and schooling in specific localities are numerous - so numerous, in fact, that it would be impossible to survey all of them-and it is surprising, therefore, to find how few of them concentrate on the subject of attendance. One notable exception is Rubinstein's study of school attendance in London during the school board era. [1] By its very nature, this study tends to concentrate on the achievements of successive school boards and it pays particular attention to the factors which influenced attendance - factors such as housing, disease, poverty, the prevalence of child labour and the migratory habits of the population. But, although some of the official statistics are questioned no alternative statistical evidence is introduced and the questioning remains largely unsubstantiated.

Later works tended to follow a similar pattern. Ellis, for example; having questioned the effectiveness of the Elementary Education Act in enforcing attendance, concentrates on the socio-economic factors which influenced attendance at the time. [2]

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1. Rubinstein, D., School Attendance in London 1870-1904: A Social History. University of Hull: Occasional Papers in Economic and Social History, Number 1. 1969.
2. Ellis, A. C. O., "Influences on school attendance in Victorian England". British Journal of Educational Studies. Vol. XXI. Number 3. October, 1973.

Once again the argument is based on official statistics and the conclusion is almost predictable: "When it is recalled that so little care was taken in the drafting of relevant legislation, it is astonishing that the problem of school attendance was as near to solution as it was at the end of the nineteenth century". Of more immediate interest is the work of Nancy Ball on the effectiveness of the voluntary effort before the establishment of the first school boards. [1] In this the official statistics are again quoted and the crisis which gave rise to the Elementary Education Act is clearly presented. But some of these statistics are challenged by reference to the situation in specific localities and an important distinction is made between attendance, which was obviously highly irregular, and enrolment which presented a less serious problem. At no time, however, is any attempt made to examine statistics which had not been prepared by government departments.

It was against this background that the initial work on attendance in Silverdale was carried out. Two schools existed in the village from 1872 onwards and, purely by chance, weekly average attendances were recorded in the log books for long periods, including a period centred on the year 1891 - the year in which elementary education became free. This date, along with Mundella's Act of 1880, which introduced effective compulsion for the first time, is generally regarded as being of enormous significance in the struggle to improve school attendance. Simple statistical analysis of the weekly averages

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1. Ball, Nancy, "Elementary School Attendance and the Voluntary Effort before 1870". History of Education Vol. 2. No. 1. January, 1973.

suggests that in Silverdale at least nothing could have been further from the truth. Attendances did not improve dramatically when education became free; rather there was a continuation of a gradual upward trend - a trend which had been apparent for at least two decades prior to the abolition of school fees.

This being the case, the scope for further testing of accepted views on the development of education in the nineteenth century by using non-departmental statistics was obvious. Even an extension of the existing study to a number of localities promised interesting results, although the nature of any such study would probably be determined more by the survival of statistics for individual schools than any other reason. An initial survey of surviving records in Staffordshire confirmed this and it seemed appropriate to broaden the statistical base of the study. This decision led automatically to the one major source of largely unprocessed statistics - the census returns, and, in particular the 1871 census which had recently become available. There was, of course, already in existence a considerable body of work based on succeeding censuses and some of these were obviously relevant to any study of schooling in Victorian England. Of particular interest, however, was Anderson's study of working class families in nineteenth century Lancashire.[1] In this the census returns for 1841, 1851 and 1861 were used and, in each case, a sample of ten percent of the families

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1. Anderson, M., Family Structure in Nineteenth Century Lancashire. Cambridge University Press. 1971.

living in Preston and the rural villages near Preston was taken. This mass of data was then cross tabulated and analysed using chi-squared tests. The results, although interesting, were largely descriptive and the technique had obvious limitations if used to identify the factors which influenced school attendance.

Of more direct interest, therefore, was the work of Denton and George in Wentworth County, Ontario, Canada which used multiple regression analysis to isolate the effects of major influences on school attendance.[1] A sample of 671 'normal' families, containing 1016 children was indentified and used as the basis for study. The dependent variable (whether or not each child attended school) was then tested against thirty nine independent variables using multiple regression analysis modified to cope with dichotomies. Their findings were very interesting and contrary to the expectations raised by most contemporary records and by less sophisticated analyses of census returns, the number and range of significant influences was remarkably small. Apart from the age of the child, demographic variables appeared to have little effect; religion and ethnic origins were unimportant; birthplace was of slight significance; and, of the socio-economic variables only parental occupation reached the required levels of significance.

The idea of applying this type of analysis to Britain

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1. Denton, F. T., and George, P. J., "Socio-Economic Influences on School Attendance: A Study of a Canadian County in 1871". History of Education Quarterly .Summer, 1974.

was attractive, particularly since it offered a firm base from which the conventional view point, derived from government statistics, could be challenged. The decision to locate the study in Hanley followed almost automatically for, by happy coincidence, the first school board was established there only three months before the census was carried out in April 1871 and this event was accompanied by an incredible proliferation of statistical information, culled from a variety of sources, both official and unofficial. Furthermore it was a date which marked the end of an era in education in the town; for the election of the first school board saw the first major compromise of a completely voluntary system of schooling. It was, therefore, an opportune moment to review the successes and failures of the denominational agencies which had for so long controlled education in the district. This situation was undoubtedly repeated in boroughs and parishes throughout England and Wales since the weeks following the passing of the Elementary Education Act saw the establishment of many school boards. But in Hanley, the survival of a complete school list, together with attendances, for Northwood Boys' School opened up the possibility of studying the actual response to schooling of more than four hundred children in one district in the town. Furthermore, information concerning actual attendance was also contained in examination schedules and these are available for three other schools in Hanley - Bethesda Boys' School, Bethesda Girls' School, and Grenville School, Cobridge. Add to this the availability of a complete set of rate books for the borough, containing detailed information concerning the quality of housing

and the nature of householding and the case for basing the study on the town was very strong.

And, if the availability of sources helped determine the location of the study, it was the nature of those sources which was to determine the direction of the study. From the debate which led up to the school board election and from the surveys carried out by the first school board itself, it is possible to gain a clear impression of the nature and extent of school accommodation in the town. The census returns can be used to determine the pattern of enrolment both within the family group and among individual children. And finally, of course, from the school lists and examination schedules the contrast can be made between enrolment and the reality of attendance.

INTRODUCTION

On October 5, 1870, at a meeting of the General Purposes Committee of Hanley Borough Council, Alderman Mr Wedgwood "proposed applying to the Education Department for the establishment of a School Board in Hanley".[1] This proposition, greeted with enthusiasm by the other members of the staunchly Liberal council, marked the culmination of a local effort which had mirrored both in argument and intensity the great debate which had divided the nation ever since the Liberal government had declared its intention to reform the education system in England and Wales.

As early as February 25 1870, a meeting of the General Purposes Committee had been called "to consider Mr Forster's Bill on Elementary Education" [2] and within three weeks a list of resolutions had been drawn up for consideration by the full council prior to the submission of a petition to Parliament.[3] These resolutions - proposed by Councillor Cooke and seconded by Councillor Pidduck - raise quite clearly the great issues which had dominated, and were to continue to dominate the debate, although the emphasis was probably different among a group of men who were likely to be deeply involved in applying any legislation which was passed by parliament. They were:

"1. that the compulsory clauses of the Bill should be made imperative on all school boards.

2. that no denominational schools should be supported by local rates.

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1. Report in the Staffordshire Sentinel: Saturday, October 8, 1870.
2. Minutes of the Hanley Borough Council General Purposes Committee: February 25, 1870.
3. Minutes of the Hanley Borough Council General Purposes Committee: March 18, 1870.

3. that the teaching should be entirely unsectarian and undenominational". [1]

Here, in short, was the response of the Liberal borough of Hanley, to the great educational issues of the day - namely the role of the churches in elementary education and the desirability of a legally enforced system of compulsion.

The religious question had bedevilled all attempts to reform the education system from the middle of the nineteenth century onwards. In many ways it was the inevitable consequence of the heavy involvement of the churches, and of the established church in particular, in the provision of elementary schooling in England and Wales. Such an involvement was not of recent origin. It extended back to the beginnings of schooling and had developed as the education system had grown during the seventeenth and eighteenth centuries. The nineteenth century saw a rapid growth of interest in education for working class children in Great Britain and, with the establishment of the National Society in 1811, the Church of England maintained and even strengthened its position as the main provider of school places. So much so that in March, 1870 when defending the voluntary system against the threat of the Elementary Education Bill, the Reverend S. T. Nevill of Shelton could say "in 1836 the church educated 1 in 36 of the population, in 1867, 1 in 13 and if left to herself she would soon swallow up the little residuum that remained". [2]

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1. Minutes of the Hanley Borough Council General Purposes Committee: 18 March, 1870.
2. Staffordshire Weekly Times: 19 March. Report of a meeting on the proposed Education Bill in Hanley.

The figures may not have been exact but the extent of church domination can be clearly sensed. Furthermore, when government intervention was first sanctioned by parliament in 1833, aid was directed into existing channels and the chief beneficiaries were the church societies.

It is not surprising, therefore, that, when agitation for a national system of education became more intense, there should be a considerable difference of opinion as to how it could be achieved. Those supporting the churches felt that the existing system was achieving the desired results and that, given a continuation of, or possibly an extension of the grant aid system introduced by the Newcastle Commission in 1861, efficient schooling could be provided for all children within a reasonable period of time. Those supporting more drastic government intervention argued that the present system was a failure and that the churches, even with government aid, could never meet the growing demand for elementary education in Britain. This argument, most forcibly expressed by the members of the National Education League, immediately questioned not only the future role of the churches in the education system, but also the nature of religious teaching in rate aided schools. These twin issues, so dear to informed opinion in mid-Victorian England were to make up the religious question which was for so long to dominate the issue of education reform in Britain. And Forster, who accepted neither argument, but preferred to attempt a compromise, whereby the state, by means of grant

aid and local rate support, would fill in the gaps which undoubtedly existed in the present system, could not free himself from the problem. Indeed, possibly because a compromise was being sought and because it was felt that pressure might influence the final form of the proposed act, agitation grew, reaching a crescendo towards the end of 1869. Then, at meetings throughout England and Wales the twin cries of the reformers were the same as those sent by the borough of Hanley in its petition to Parliament, namely, no rate support for denominational schools and no sectarian or denominational teaching in rate supported schools. Since few people dared suggest the complete abolition of religious teaching in schools this plea for unsectarian teaching was to give rise to a great deal of soul searching and endless arguments at meetings everywhere and in the columns of newspapers, both national and local. The newspapers of North Staffordshire were no exception and throughout the period the 'religious question' recurred with monotonous regularity:

"Let the Bible be read without comment, in the simple and majestic language of the Authorised Version.Reading, writing and arithmetic were sufficient for a foundation and past experience has taught me that to give more was to do more harm than good" (Mr Yates at a meeting of the Staffordshire Chamber of Agriculture held at the Swan Hotel, Stafford on June 15 1870).[1]

"The meeting passed a resolution welcoming the Bill but protested against local boards having powers to levy a rate for the support of schools, the religious teaching in

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1. Staffordshire Sentinel: 18 June, 1870.

which they may not determine; or, out of the rate, to aid denominational schools'". (Meeting on the Elementary Education Bill, Hanley March 16 1870). [1]

"A petition has been sent to Parliament by non-conformists in Hanley urging that the Religious Question shall not be left to local authorities". [2]

"The League does not intend to destroy the existing system ..... and it is not intended that the schools of those who have borne the burden and heat of the day should stand deserted and in decay". (Letter from G. Melley MP (Stoke-upon-Trent) to the Times). [3]

"Mr W. E. Forster, Vice President of the Committee of Council on Education, addressed a meeting at Bradford on Monday evening. He said that the Elementary Education Bill was 'so important that no denominational difficulties would stop the progress of elementary secular education' and he was sure that 'the state would not interfere with religious education'." [4]

The dilemma was a national one but for the ratepayers and churchmen of Hanley it was particularly acute in that, as members of the established or non-conformist churches, they preferred to see education remain in the hands of the religious institutions, and yet, as staunch Liberals - as the majority were - they felt a loyalty towards the government's intentions and appreciated the need for radical changes in the pattern of elementary education for the children of the working classes. It was a dilemma clearly seen in the contrasting views of two leading figures in the field of education, expressed at the Annual Conference of the Archdeaconry of Stafford in October 1870.

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1. Staffordshire Sentinel: 19 March, 1870.
2. Staffordshire Sentinel: 12 March, 1870.
3. Staffordshire Sentinel: 15 January, 1870.
4. Staffordshire Sentinel: 15 January, 1870.

Viscount Sandon - "Our first duty is to prevent the erection of rate funded schools because no parish is complete without its church school ..... If the School Board is established we should join in whole heartedly with the Dissenters since the struggle will then be between religious and secular education".

Reverend Sandford (Her Majesty's Inspectorate) - "A school Board is necessary even where sufficient accommodation exists simply to compel attendance and to pay for schooling when parents will not pay". [1]

This raises the second great issue of the education debate - compulsion - one which, being more obviously relevant to the question of attendance, will be dealt with later in more detail. The basic arguments can be summarised quite simply, however, and they were given forceful expression by one of the personalities who dominated the local debate. Local member of Parliament, George Melley led the argument in favour of compulsion:

"What we want is scholars not schools, the existing schools are half empty ..... The number of scholars in average attendance is less than half the number for which there is accommodation and while this is so the existing system stands half condemned ..... By compulsion only can children be rescued from the streets. This compulsion must be direct by summons and, if necessary by fine of neglectful parents. If there is compulsion, the schools must be free, for a parent cannot be forced to send his children to a paying school if he cannot afford it". [2]

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1. Staffordshire Sentinel: 29 October, 1870.
2. Times: 12 January, 1870.

The commitment to compulsion is clearly apparent but, as might be expected in a gentleman of 'Liberal' persuasions, the main argument against compulsion was never far from his mind.

"It is said that compulsion is an infringment of personal liberty. This is happening all the time. You are not allowed to create nuisances etc. I am told that no one will stand a policeman coming into his house and taking a child out because it was not sent to school. Why not? Do people obey the law of the land only if compelled by physical force to do so?" [1]

Liberty! That watchword of Victorian England. The freedom of the individual to determine his own future without deliberate interference by other people or institutions such as the government; or the freedom of government to act towards improving the lot of members of society. In the field of education the 'negative' freedom, as expressed by William Godwin, that the only true education is self education and that state intervention actually hinders this process; versus the 'positive liberty', as seen by J. A. Roebuck, which accepted government intervention because "freedom in itself is not a good thing - it is only good when it leads to good - if it leads to evil it must be restrained by the most stringent and coercing bonds". [2]

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1. Staffordshire Sentinel: 12 November, 1870 - Address at the North Staffordshire Iron Masters and Manufacturers Prize Giving. This scheme was designed 'to encourage parents to help children at school, to encourage hard work and to give pleasure.'
2. Hansard, 1833. Vol. XX Cols. 139-66.

The divide in opinion is clear, the arguments were highly emotive and it is not surprising that few people were prepared to take so strong a stand as the member of Parliament for Stoke-upon-Trent. For, in the period prior to the introduction of the Elementary Education Bill, he would have been in a minority and Sir John Pakington was probably correct when he said, "I cannot bring myself to believe that we can obtain a proper degree of education without some degree of compulsion. But the government must carry public opinion with it and the public mind is not yet prepared for direct compulsion". [1]

Given such doubts, it is not surprising that the search for a compromise was long and thorough - a search, the philosophy of which was encapsulated in the plaintive words of the Bishop of Manchester.

"Cannot some agency be discovered by which children of apathetic parents might be drawn into school? ..... Cannot this be done without recourse to the law? For a compulsory or prohibiting law which is not obeyed but systematically trampled underfoot is about the most demoralising and anarchical thing that any nation can have on its statute books". [2]

'Drawn' not forced;'persuaded'not coerced. The air of compromise is obvious but, at the same time, it was not without foundation, for compulsion at that time could be viewed in two ways - as direct compulsion or as indirect compulsion.

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1. Speech at a meeting of the Social Science Association. January 1870.
2. Staffordshire Sentinel 25 June, 1870. Report of a speech by the Bishop of Manchester.

Direct compulsion was, as the name implies, the compulsion of the law, enforced by the constabulary or the officers of the court, penalised by fine or even imprisonment. Indirect compulsion already existed in the form of Factory legislation which compelled children under the age of thirteen, employed in certain industries, including since 1864, the pottery industry - the staple industry of North Staffordshire - to attend school in a part-time capacity. An extension of this legislation would, in the view of many observers, including the Factory Inspectors, do away with the need for direct compulsion - a view shared by J. S. Mill who, whilst accepting the need for compulsion in the education system, found great difficulty in accepting the most obvious means of achieving it and turned instead to a form of indirect compulsion based on the institution of examinations and standards which had to be attained before employment could be found. Such a point of view dominated Liberal thinking in the period prior to the introduction of the Elementary Education Bill and it is not really surprising that Forster, in drafting the bill, himself adopted such a compromise.

The passing of the bill, however, produced a marked change in attitude and discussion passed from a relatively abstract consideration of religious issues and personal liberty to the formulation of well defined strategies for implementing the act. Individual freedom might have been an issue close to the heart of liberals everywhere but when confronted with real problems the Liberal councillors of Hanley had no doubt in which direction their loyalties lay.

In an attempt to temper the enthusiasm which greeted Alderman Wedgwood's proposal that the borough council should make an application for the establishment of a school board

in Hanley, the town clerk pointed out that information about accommodation and need ought to be obtained before a decision was taken. "If education facilities were then deemed insufficient, the Department could recommend the formation of a School Board. This decision would be open to challenge and a public enquiry would follow. Under Section 12, however, it was possible to apply for a School Board at once and if formed it would supply increased accommodation".[1]

Councillor Gilman accepted this interpretation of the Act and proposed that information about school requirements should be obtained first. Alderman Wedgwood's reply gave a clear indication of future developments.

"The Act provides for the appointment of a School Board in every district where there is not accommodation for all children not otherwise educated. It is my opinion that there is not sufficient school accommodation for the ten thousand children I estimate to live in the borough. In going through all the preliminaries required by the Act for the formation of a School Board it would be the end of 1871 before this would be possible. If an application was made now a School Board might be appointed before the end of this year. This will save the time, trouble and expense of a public enquiry. And it is being done at this moment by other cities and towns".[2]

Attractive as this argument was, other members of the council were less willing to trust the evidence of their own eyes and a decision was postponed until the next meeting

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1. Staffordshire Sentinel: 8 October, 1870. Report of Council Meeting: 5th October.
2. Ibid.

by which time a preliminary survey of school accommodation would be carried out.

In fact, the survey took longer than expected and the statistical information was not available for the meeting held on November 9th, 1870. Undaunted, the advocates of the School Board proceeded to take charge of the meeting. Proposing that an application should be made, Councillor Ridgway said "We must work on the assumption that many children are not attending school and, unless we apply for a School Board, there will be no compulsion for them to attend. The right thing to do is to form a Board. The whole thing depends on compulsory attendance. There might be plenty of space for all children in the town but if it is not made use of, it is no good to say we have it. There is an amount of apathy on the part of parents as to the education of their children. There is no need for any enquiry as to whether children attend school or not - the fact is patent to everyone. There is plenty of need in this town for the adoption of the compulsory powers of the Act".[1]

In his speech seconding the motion, Alderman Boothroyd agreed, adding:

"The position will be the same with regard to accommodation whether or not we have a Board but we cannot have compulsory powers without a Board, for it is the Board which makes the bye-laws. That was the germ of the whole measure - compulsory attendance. If we have enough accommodation it will be no good without compulsory powers".[2]

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1. Staffordshire Weekly Times: 12 November, 1870. Report of Council Meeting held on Wednesday 9 November, 1870.
2. Ibid.

The Mayor, Councillor T. Pidduck summarised the argument in two succinct sentences.

"We have all the children in school whom we can possibly get there under present circumstances. The only thing is to adopt the Act compelling all to go to school".[1]

At this, the motion was carried with applause and the Borough of Hanley had firmly embarked on a course which would lead to the establishment of a School Board in the town before, as Alderman Wedgwood had predicted, the year was out.

The total pre-occupation of practical men with practical matters is obvious. At the same time, however, there was a marked and significant change of emphasis in the argument during the period of one month between the two meetings. In October Alderman Wedgwood concentrated almost exclusively on the need for a School Board to increase school provision in Hanley - an argument which was open to challenge and which could quite easily collapse in the face of the results of a simple survey of schools in the borough. By November, the emphasis was entirely on the need for the compulsory powers available to a School Board - a need which was irrefutable and which could be ascertained simply by walking the streets of the town and observing the children at play and at work during times when they should have been at school. With the acceptance of such an argument, the findings of any census could safely be ignored and Hanley could assume its position among the more progressive municipalities of the Kingdom - no small matter at a time when civic pride was at a premium. And, in adopting this change of stance, the town council were not without support from influential members of society.

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1. Staffordshire Weekly Times: 12 November, 1870.

For example, George Melley M.P., summarised the case to perfection in a speech given at the presentation of prizes awarded by the Ironmasters and Manufacturers of North Staffordshire - prizes designed "to induce parents to keep children at school to a later age; to stimulate industry; and to give pleasure".

"The question is, how will you deal with the Act? Shall it be compulsory or permissive and a dead letter .... For, compulsion to provide schools may be part of that Act, compulsion to attend is not, and it is for you to take advantage of the opportunities and facilities which will be provided. Leave not a stone unturned to place in power a council of education which will enforce the attendance of every child at the National Schools of this district ..... I ask you, is it fair that you should, as rate payers be taxed for the creation of schools which are not to be used, in the playgrounds of which grass should grow, and, in the classrooms of which the masters and mistresses provided by law are to sit without duty or occupation?". [1]

Emotive words, and words with a subtle change of emphasis. No longer is it the provision of new schools which is the point at issue; instead it is the enforcement of attendance at existing schools which is the crux of the new Act. The threat to the established church is played down and the way is cleared for any thinking churchman to support the application for a School Board.

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1. Staffordshire Sentinel: 12 November, 1870. Report of speech given by George Melly M.P. at the prize giving of the North Staffordshire Ironmasters and Manufacturers Prize scheme.

In fact, opposition was apparently slight and, once the application was made, the religious bodies prepared themselves for the forthcoming formation of a School Board in the town.

On Monday, November 14th 1870, a meeting of clergy and laity favourable to religious education was held at the Town Hall. In addition to welcoming the application for a School Board, the meeting expressed its conviction that the raising of funds for the building of schools could best be met by a denominational effort, and resolved that "ministers and laymen from each congregation be invited to form a committee to nominate suitable candidates for a School Board in order to avoid a contest, which would be prejudicial to the interests both of religion and morality". [1]

The proposed reforms were also likely to be expensive and, as the possibility of a School Board became more certain, fears about the likely expense grew, and with them pressure from the rate payers.

"The number of children for whom accommodation is required is small when the enlargements begun or proposed to our existing schools are taken into consideration. Why, therefore, are we to be burdened with a school rate? Are not our people sufficiently taxed? It is not a question of education or no education but simply who is to pay".
(Letter to the Staffordshire Sentinel from R. F. Abraham, 1 Wilton Terrace. November 23, 1870).

Concern even extended to the cost of a possible School Board election and, when the Mayor, Councillor Pidduck, on receipt

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1. Staffordshire Sentinel: 19 November, 1870.

of permission to form a School Board from the Committee of Council, fixed the date for the election as December 19, efforts by all parties to avoid such an election were redoubled. [1] The measures and counter-measures considered to achieve this end are catalogued in the pages of the local newspapers.

Monday, November 14, 1870.	Rumour that permission had been given by the Department for Hanley to form a School Board of nine members.
Monday, November 14, 1870.	Meeting of Gentlemen favourable to Religious Education resolved that "ministers and Laymen from each congregation be invited to form a committee to nominate suitable candidates for the School Board in order to avoid a contest".
Monday, November 21, 1870.	Meeting of Religious parties in the Town Hall (the Mayor in the Chair) decided to fix the strength of the various religious denominations on the board: Episcopalians -2; Methodists - 2; Nonconformists (Congregationalists, Baptists, Presbyterians) - 2; Roman Catholics - 1.

1. Rumours that permission had been granted appeared in the press during the previous week. These were dismissed by the Mayor who pointed out that permission was merely 'forthcoming'. (Staffordshire Sentinel: 26 November, 1870).

	The two remaining candidates to be offered to the working men of the town and to those not associated with any religious body. Roman Catholics objected, claiming that they preferred denominational education.
Tuesday, November 22, 1870.	Announcement that permission to form a Board was forthcoming.
Thursday, November 24, 1870.	Meeting of Churchmen decided that if the Roman Catholics were not taking up their allocation of seats, the representation of the established church should be increased to three (a motion to claim five seats was defeated). Messrs Bull, Narramore and Bradford were adopted.
Sunday, November 27, 1870.	Meeting of Roman Catholics adopted the Reverend W. Molloy as nominee for the School Board.
Monday, November 28, 1870.	Meeting of Burgesses held at the Town Hall with a view to nominating candidates. Twenty one names put forward initially. Five withdrew immediately. A proposal that there should be no clerical or ministerial representation on the board was carried, the Reverend W. Molloy being in a minority of one.

This left fifteen nominees. Further discussion led to eight more nominees, four of whom withdrew. In order to avoid "the excitement, expense and the great evil of a contest" it was decided to put forward this list of nineteen nominees to a further public meeting on Thursday.

Thursday, December 1, 1870. Meeting of Burgesses held at the Town Hall with a view to adopting nine candidates (the Mayor, Mr Pidduck, in the chair). Five withdrawals reduced the list to fourteen. The Episcopolians then agreed to reduce their nominees from three to two, reducing the list to thirteen.

The Mayor was then nominated. He accepted and the list was back to fourteen.

Further discussion led to five more withdrawals and the list now stood at the required figure - NINE.

Final list:-

B. Boothroyd		
J. Bull		
R. E. Narramore	Agent	C of E
E. Powell	Manufacturer	Methodist
G. Ridgway	Miller	Methodist
C. Wedgwood	Manufacturer	Unitarian

W. Wood	Potter	Working man & Trade Unionist
W. H. Ringland	Draper	Presbyterian
T. Pidduck	Ironmonger	Congregationalist

'The turmoil and cost of an election' (The Mayor, T. Pidduck) was thus avoided although the electoral procedures had to be carried out.

Saturday, December 3 - Notice of election published.

Thursday, December 8 - Nominations to be sent to the Town Clerk's office.

Friday, December 9 - List of Nominees published by J. Beton Deputy Returning Officer.[1] Seventeen

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1. The nominees on December 9th 1870 were:

*Ashworth, Taylor	Howard Place	Manufacturer	C of E
Bull, Joseph	Broomfield House	Ironworker	C of E
Bradford, George P.	10, Market Sq.	Draper	C of E
Boothroyd, Benjamin	Birch Terrace	Surgeon	Congregationalist
*Bodley, Edward F.	Devonshire Place	Manufacturer	
Cartledge, Henry	Chapel St, Etruria	Manufacturer	
*Gilman, Thomas	Wheatley Place	Tailor & Draper	
Molloy, Rev. William	7, Mollart St	Clerk in Holy orders	R.C.
Miller, George	12, Brighton St	Presser	Working man
Narramore, Robert E.	Church Street	Agent	C of E
Powell, Edwin	High Street	Manufacturer	Wesleyan
Pidduck, Thomas	Lichfield St	Ironmonger	Congregationalist
Ridgway, George	Grove House	Miller	New connexion

/Cont...

names included. An election was necessary

Saturday, December 10 - Nominations sent to the Mayor and a two day period for withdrawal begins.

Monday, December 12 - Withdrawal time expires.

Thursday, December 15 - Final list of candidates published. Comprised fourteen names.

Monday, December 19 - School Board Election. Polling from 12 noon to 7 p.m.

And so, the election which no-one wanted, which the various parties had striven to prevent in order to avoid the excitement, upset and, above all, the expense which it would involve, became inevitable. The agreements so lightly entered into during th post-application euphoria were not strong enough to withstand the dissensions which existed between the various churches and between the proponents of sectarian and non-sectarian education. Minor irritations became running sores - the attempted exclusion of ministers of the church offended the Roman Catholics; the feeling that the Church of England was underepresented irrated the churchmen; a representation of two for the Methodists meant the inevitable exclusion

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Ringland, William H.	Birch Terrace	Draper	Presbyterian
Wragg, Frederick	The Villas, Stoke	Gentleman	C of E
Wood, William	Hawksmoor Street	Potter	Working man
Wedgwood, Clement	Barlaston	Manufacturer	Unitarian

Comprising 6 Churchmen, 4 Independents, 1 Wesleyan, 1 Methodist, 1 Presbyterian, 1 Unitarian, 2 Unknown.

* Withdrawals before the publication of the final list.

Staffordshire Weekly Times: 10 December, 1870.

of several branches of that church; and the working men felt that, since the bulk of the population comprised working men, a representation of one was totally inadequate. As a result, reason was cast to the winds, nominations proliferated after December 1st and a full scale election was under way.

Because of the delays caused by the protracted negotiations designed to avoid an election, the campaign was reduced to little more than one week. During this short space of time, however, by means of public meetings and advertisements in the local press, the candidates hammered home the main points of their respective platforms, which to the twentieth century eye unsusceptible to the nuances of Victorian opinion display a similarity verging on uniformity. Only William Wood deviated from the established line. In his speech seeking adoption as the working man's candidate for the School Board, he made the following points:[1.]

1. "It is pointless to promise to carry out the Act since any School Board is compelled to do that. If it does not the Privy Council has the power to turn it out. Instead we must extract from the Act all the benefits possible for the community".
2. "I am in favour of compulsory education".
3. "Education must be lifted out of a rut and placed on higher, nobler ground. The three R's are not education - education must go further to be on a level with continental countries".
4. "As for religous teaching, moral training is more important, inculcating love of truth, forebearance and charity. No Act of Parliament can forbid that . In this the moral influence

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1. Staffordshire Sentinel: 3 December, 1870.

of the schoolmaster is most important but how can he exert it if he spends all his time filling in returns for the Factory Inspectorate?"

5. " Education facilities for the half-timers must be improved or many will remain as ignorant as when they started".

6. "Finally, let us remember that the object of education is to make men and women of boys and girls, with sound hearts and hard heads. Therefore, let us try to make the School Board go in the direction of providing effective education for the children of this borough".[1]

In this way this exceptional working man, this friend of John Stuart Mill, questioned the orthodoxy of the day and, in doing so, he was alone among the nominees for the School Board in Hanley. For the rest it was the Holy Trinity of the education debate - religion, provision and compulsion - but a Holy Trinity reduced to the level of a more work-a-day troika, better suited to the exigencies of the day. The platform of the Congregationalist candidate, Benjamin Boothroyd, a surgeon of Birch Terrace, was typical. Having promised to carry out the intentions of the Act, he went on to say: "First, I will not support the building of new schools until the need is proved. Second, I regard the compulsory clause as the germ of the Act although the carrying of it out will involve the Board in much unpleasantness. Third, I believe that the Bible should be read without comment. And, finally, I will take care that the remission of fees is carried out very cautiously (Applause) since the purse strings of the ratepayers must be guarded jealously in this matter and, at the same time and by the same process, people must be saved from the pauperism

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1. Staffordshire Sentinel: 3 December, 1870.

and demoralisation which entirely free schooling supported out of the rates will involve".[1]

A masterly balancing act, designed to placate all parties. The churches would have to sacrifice the possibility of denominational teaching in future Board Schools but, since any scheme of sectarian teaching could produce nothing but endless strife and since an agreed syllabus of religious education was unlikely in the prevailing climate, Bible readings with no comment, or possibly the minimum of comment required to make them intelligible, provided the lowest common denominator acceptable to all parties. At the same time, reassurance was given to the churches that there would be no immediate competition from the School Board in the field of school provision since the Board would act only if the existing agencies failed to meet the needs of the growing township of Hanley and Shelton. This, in turn, enabled assurances to be given to the ratepayers of the borough that, by controlling future school building programmes and by limiting the practice of remitting fees for children of poor families, the school rate would be kept to a minimum and any money raised would be wisely spent. Only the issue of compulsion remained and, in this less controversial and divisive area there was no hedging of bets. The clauses relating to compulsion were the germ of the Act, the raison d'etre of the School Board itself, and they would be enforced regardless of the consequences.

Candidate after candidate expressed the same sentiments and, in the light of this, it is interesting to assess the performance of Hanley School Board on these major issues.

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1. Staffordshire Sentinel: 3 December, 1870.

For, when confronted with the realities of the situation, the gentlemen elected failed to enforce compulsory attendance and, after a brief moratorium, more and more effort was diverted into school provision, leading to direct competition with the churches[1] - a surprising outcome for a body dominated by church representatives.[2] Why did this change take place? Does it

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1. See pages 68 & 69.
2. The Election for the Hanley School Board was held on Monday December 19, 1870. Polling was from 12 noon - 7 p.m. It rained for most of the day. 5,807 Burgesses were entitled to vote. 3,777 did so. Each voter had nine votes to allocate as he wished. According to the returning officer this presented no problems and only fourteen papers were spoiled.

   Results

1.	Wragg Frederick	Gentleman	C of E	6,543
2.	Molloy William	Clerk in Holy orders	R.C.	3,070
3.	Wedgwood Clement	Manufacturer	Unitarian	2,826
4.	Narramore Robert E.	Agent	C of E	2,657
5.	Wood William	Potter	Working man	2,597
6.	Bull Joseph	Ironworker	C of E	2,490
7.	Bradford George P.	Draper	C of E	2,458
8.	Pidduck Thomas	Ironmonger	Congregationalist	2,294
9.	Powell Edwin	Manufacturer	Wesleyan	2,264
10.	Ridgway George	Miller	New connexion	2,188
11.	Boothroyd Benjamin	Surgeon	Congregationalist	1,894
12.	Miller George	Presser	Working man	1,801
13.	Ringland William H.	Draper	Presbyterian	949
14.	Cartledge Henry	Manufacturer	-	21

The first nine candidates were elected.

mean that the local representatives misread the situation and that the propagandists were right? Was the final platform of the candidates for election as political as it appears to be over a hundred years later? Or was it on the grounds of pragmatism alone that the members of the School Board allowed school provision to become a matter of overwhelming importance? The remainder of this study will be an attempt to isolate reality from the propoganda which dominated argument in the field of school attendance in 1870. This will be done by examining the situation which existed in Hanley in the year of the Elementary Education Act - the last year of the unreformed voluntary system in England and Wales - concentrating on the provision of schools in the town, the enrolment of children in these schools and the attendance of the children once they had been enrolled.

ACCOMMODATION

The fact that the introduction of a new agency to provide schools was even considered by the campaigners for education reform in the period leading up to the Bill of 1870, implies that there was something radically wrong with the efforts of the existing voluntary agencies. Evidence to support such an argument was not difficult to come by, usually in the form of statistics showing the low levels of school enrolment in large areas of England and Wales. That large numbers of children did not attend school was beyond question - a walk along any street in any city, town or village in the country would have convinced even the most sceptical of observers. What was less certain, however, was the exact size of the problem and the extent to which it could be attributed to the failure of the various voluntary agencies to provide school accommodation. Such a degree of uncertainty is perhaps surprising in view of the proliferation of statistical information during the period in question and particularly after 1851.

The census of that year contained a survey of schooling and school provision in Great Britain and much of the later confusion stems from the findings contained in this report, and in particular from the adoption of a school age base of three to fifteen. [1]

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1. Census of Great Britain 1851: Special Report on Education. Report of the Commissioners for taking the Census of Great Britain on Education 1852-53. 1692. xc 1.

Using this, Horace Mann produced the following figures:

Total population between the ages of 3 and 15.	
4,908,696	of these there were:
1,000,000	at work.
95,435	sick or mentally ill.
50,000	educated at home.
647,856	at home. (mainly under 5).
This left 3,015,405	requiring regular education.
	($\frac{1}{6}$ of the total population).

Of this group, it was established that about 28% were receiving no education of any kind. The repercussions of the report were considerable. In the first place, it established a potential school population comprising $\frac{1}{6}$ of the total population - a figure which was hopelessly high and one which gave rise to expectations which could not be satisfied in the foreseeable future. And second, it confirmed that there was a large shortfall both in the provision and in the take-up of schooling by the children of working class parents. A report of the Manchester Statistical Society concerning the condition of children under the age of fifteen in the city carried out the same year confirmed this picture by showing that among children between the ages of 3 and 10, only 52% were attending school.

Ten years later the statistics produced for the Newcastle Commission [1] showed on the face of it, an equally unpromising situation.

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1. Education Commission, Report of the Commissioners appointed to enquire into the State of Popular Education in England 1861. [2794 - I] xx. 1. Part 1.

The total population between the ages of 3 and 15 had by now risen to 5,300,000 and this included only 2,530,000 scholars - a truly alarming shortfall. But Nassau Senior, in his report, suggested that such an age base was totally unreasonable and that a more reasonable assumption would be a six year period of schooling between the ages of 3 and 15. On this basis, only 2,650,000 children should be at school, giving a shortfall of no more than 120,305, most of which could be explained away in terms of ill health. Such an argument, reasonable as it may have appeared to succeeding generations each of which saw the ideal of education for one sixth of the population or a school age base of twelve years no nearer achievement, had little appeal to the reforming parties. They preferred to use the crude statistics which showed , and continued to show an alarming proportion of the potential school population receiving either nothing but the most rudimentary education or no education at all. For example, an enquiry into the state of education in four major cities carried out in 1869, produced the following statistics for Liverpool:

Total Population between the ages of 3 and 13	90,332
Number at school or at work	50,000
Number on the streets	25,000

A similar pattern emerged in Birmingham and Manchester where less than sixty percent of the potential school population was receiving education and in Leeds the figure rose only to sixty two percent.[1] The annual returns to the Committee of Council in Education could be used to support this argument.

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1. Return confined to the Municipal Boroughs of Birmingham, Leeds, Liverpool and Manchester, of all schools for the Poorer Classes of children H.C. No. 91. 1870, p 159.

In 1869, the year when Forster was taking his momentous decisions concerning the reform of elementary education in England and Wales the following statistics were published:

Schools under Grant	9,563
Departments under Grant	13,276
Providing accommodation for	2,011,214 pupils
Number of Pupils on registers	1,797,388
Number of Pupils in average attendance	1,245,027

Could the situation be any more alarming? Could the failure of the voluntary agencies be more clearly exposed? Ammunition for the reformers was there in plenty and Forster proceeded to use it. Adopting even the reduced base used in the reports (5 - 12 years of age) which gave a potential school population of 3,430,335 among the working classes, the figures showed that little more than fifty percent of this population was on the registers of efficient schools (i.e. schools under grant) and that less than forty percent was in regular attendance. The scale of the problem was enormous; the statistical evidence supported the evidence to be seen in every community in the country, the need for reform was irrefutable.

Or was it? These same figures, damning as they appear, contain in them the basis for the counter-argument used by the church parties to justify their own achievements. In the first place they could, and did, point to a considerable increase in schooling among the children of working class parents; an increase due almost entirely to the efforts of

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1. Report of the Committee of Council in Education 1869. (1870 [C165] xxii I).

church agencies and of the National Society in particular. For example, the Report of 1869 indicates an increased provision of almost one million school places in the preceeding decade (1859 - 1,111,102 places 1869 - 2,011,214 places) and an increase of almost a half a million in regular attendance during the same period (1859 - 748,154; 1869 - 1,245,027). If this trend was maintained, so the argument ran, the churches alone would eventually provide sufficient accommodation and, if more encouragement was given in the form of grants, this could be achieved comparatively quickly. Furthermore, the evidence that the churches had failed to meet rising requirements was by no means conclusive for did not the very figures used to condemn the voluntary agencies indicate that they had in fact provided more accommodation than was likely to be used under present circumstances? To use the words of the Reverend F. Watkins (H.M.I.) "What we want are scholars not schools, the existing schools are half empty".[1]

Strong as this argument was, informed opinion was against it and throughout the period prior to the Elementary Education Bill, the church was very much on the defensive. This can be sensed in the concluding paragraph of an advertisement placed in the local press by the Bishop of Lichfield to raise money for 'a special education fund' designed to forestall the activities of the proposed School Boards in the field of school building.

"I leave the case in your hands. In the past years the Church of England has done great things in education; three quarters of all the children educated have been taught in

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1. Quoted by G. Melly M.P. in a letter to the Times 15 January, 1870.

her weekly schools. Let us not be found wanting now in this great emergency, let us enable her to fill up the vacant places, to strengthen the weak points, and to extend and improve all her works".[1.]

Paradoxically it might have been the Vice-President of the Committee of Council on Education writing. For Forster, when confronting the problems of trying to improve the elementary education system in England and Wales had adopted an equally defensive stance. Having accepted the arguments of the advocates of reform concerning the scale of the problem - he did in fact take up an extreme position with regard to this by excluding from his calculations children who were being educated in inefficient schools i.e. schools not under inspection - he then rejected the obvious solution to the crisis situation which the figures indicated, namely the replacement of the church by more efficient agencies for the provision of schools. Instead, as we have seen, a compromise was adopted, a dual system by which the church could remain as the dominant force and School Boards would be introduced where its efforts proved ineffective. To a considerable extent this approach reflected the climate of opinion of the day, with its dislike of government intervention and its horror of increased taxation. But it also undoubtedly reflected the size of the church lobby and the strength of the case which it was promoting. For, by the late 1860's not only was the church defending its achievements in providing schooling for the bulk of the educated population, it was also attacking the statistical basis upon which the argument

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1. Staffordshire Sentinel 19 November, 1870.

for reform was based and calling into question many of the conclusions drawn from the figures.[1]

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1. Perhaps the most coherent paper questioning the statistical basis of the reformers' case is contained in a letter from the Reverent C. A. Stephens to the Department of Education, dated 14th February 1868. 1867-68 (114) liii 115.
In it he points out that all of the Department Statistics relating to the provision of church schools are virtually meaningless since they are based on the wrong parish system i.e. the government statistics make use of the Poor Law parishes whereas the activities of the Church of England are centred on the older system of ecclesiastical parishes.
This produces the following picture:
Total number of parishes 13,763
Parishes aiding schools 3,853
This indicates a low level of performance but 1806 ecclesiastical parishes were divided into 5,911 Poor Law parishes. Therefore:

4,105 Poor Law parishes exist beyond and above the original parishes.
Of these 1,176 correspond with ancient chapelries or units recently established under the Church Building Acts. Therefore:
2929 Poor Law divisions exist in excess of ecclesiastical divisions (most of them small).

The problem is exaggerated because in the larger ecclesiastical parishes the church is often maintaining many schools e.g. Liverpool is accounted one parish but it contains 31 district parishes many of which have schools. As a result 1815 school divisions are excluded.

Total underestimated is 2929 + 1815 = 4744

When population was considered, he estimated that more than two thirds of the population lived in parishes with one or more school.

The confusion which reigned over the interpretation of such statistics and the debate which it gave rise to nationally are perhaps understandable. For such figures were relatively simple general statistics and, by their very nature, they encouraged analysis in terms of simple averages - and for every average, there were innumerable deviations, each of which could give rise to counter arguments. Only by viewing the picture in terms of local patterns could the difficulties have been resolved and in most localities this was attempted only belatedly - in fact often posthumously, when the Act had been passed and a school board established.

This was certainly true of the Diocese of Lichfield (which included the Potteries district) where no attempt was made to establish the extent of the accommodation problem until the Act was imminent and where the returns - even incomplete returns - were not available until October, long after the Act had passed through Parliament. These returns were, however, unveiled in time to influence the decision by the Hanley Borough Council as to whether or not to apply for

permission to establish a School Board. And, on the face of it, they did little to strengthen the church case, indicating, as they appear to do, a considerable shortfall in school provision.[1]

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1. Archdeaconal Conference for the Archdeaconry of Stafford Held at Stafford, 15th October, 1870.
Report in the Staffordshire Sentinel 29th October, 1870.
The survey was carried out in the hope that parishes would be encouraged to make applications for the grants which were at that time being made available by the government, the National Society, the Society for Promoting Christian Knowledge and the Diocesan Education Fund - all in a desperate attempt to increase school building before the government grant was suspended on 31 December 1870 and hopefully to forestall the introduction of school boards in the Diocese.

Places sending in returns - 544 Not sending in returns - 167
Places with ample school provision - 348
Places requiring new or enlarged school premises - 196

Of these

in 19 places the need will be met by private benefactors or local effort.
in 56 the clergy are in doubt as to what can be done and are doing nothing.
in 22 no attempt can be made because of local difficulties particularly the poverty of the population (population 109,702).
in 99 grants are being applied for. These 99 parishes have a population of

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But these returns, like the earlier national returns, present considerable problems to the would-be interpreter. In the first place they are still too general and it is clear from the accompanying commentary that the returns for Staffordshire alone hide considerable local variations, with the country parishes at one end of the scale and the Black Country at the other, the latter representing the depths to which the education system might sink. The North Staffordshire Potteries were ranked between these extremes, although it was obviously felt that a great effort was necessary if the area was "not to reach the depths seen in South Staffordshire". Second, it is apparent that

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(Footnote continued from page 33)

238,354. In them there is a deficiency of school provision of 16,734 (places for 23,763 children are already provided). Cost of meeting this deficiency £42,565.

If the situation is the same in the 167 parishes which did not send in returns the deficiency would be increased by 20,000 and the cost of remedying it by £47,000.

Within Staffordshire the figures closely reflected the Diocese as a whole with 50 parishes applying for grants, comprising a population of 168,905.

The deficiency in school provision was 9,780 places which would cost £23,891 to remedy.

little account is taken of the work of the other voluntary agencies which provided accommodation for twenty five percent of the school population generally, and for many more in some localities. And finally, of course, the basis for the calculations of need is a reversion to the totally unrealistic target of one sixth of the total population i.e. a potential school population of 40,497 out of a total population of 238,354 in the parishes applying for grants.

It was against this background of inadequate and often conflicting evidence, of inflated expectations and of bitter disappointment at the failure to attain them, that decisions were taken both nationally and locally. And, against such a background, it is not surprising that the councillors of the Borough of Hanley were swayed by instinct rather than reason when they decided to apply for permission to form a School Board, or that the School Board, when formed, should itself fail to achieve what it set out to achieve, namely compulsion, and instead should divert its energies into building new schools. To some extent, this apparent change of direction was the result of the political pragmatism which dominated the build up to the application; but it may also have reflected a reassessment of the situation when more concrete evidence became available on taking office. For, it was only after the election that accurate statistical information based on the 1871 census and a survey of schools carried out by members of the Board became available, and this showed a very different picture from the one painted in the national reports and the diocesan reports. And not only was the picture different; the response to the information was also totally divorced from the idealism and almost hysterical despondency which had greeted

the early national surveys. Instead we see a group of hard headed business men attempting to carry out their election promises, namely to preserve the position of the churches to which they almost all belonged and which they had been elected to represent, and to protect the pockets of the ratepayers who would have to foot the bill for any changes suggested. And, as befits a group of Victorian businessmen, they moved at a startling speed.

The first meeting of the Hanley School Board was held on the 5th January 1871, less than three weeks after the election.[1] At the second meeting on 15th February, 1871 a subcommittee of two was established "to ascertain and report as to the best mode and probable expense of obtaining returns of the number of children between the ages of three and five and thirteen in the borough" and to arrange for visits to be made to "the various schools for which returns have been made and to report thereon and also as to any other schools or school rooms for which no returns have been made"[2]. At the third meeting, on 15th March 1871, the sub-committee, comprising Messrs Narramore and Powell, duly reported that "the District Registrar could (if the consent of the Registrar General was obtained) supply all the desired information as to the number of children in a few days after the Census Enumerators had completed their papers (by June or July)" and that the expense would be £25.00.[3] For the remainder of that spring

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1. Minutes of the Hanley School Board: Meeting 5 January, 1871.
2. Minutes of the Hanley School Board: Meeting 15 February, 1871.
3. Minutes of the Hanley School Board: Meeting 15 March, 1871.

and summer consideration of the implications of the findings of the sub-committee were to dominate proceedings at the monthly meetings of the School Board.

The first report of the sub-committee was optimistic.[1] Twenty three schools had been visited and, even when all Dame schools, which were regarded as "being unworthy to be taken into account in estimating the existing school accommodation", were removed from the reckoning, there promised to be little or no shortage of school rooms in the borough. And, in case a shortage did occur, it was resolved to examine other rooms which were not at present being used for elementary education and to support this move by placing an advertisement in the Staffordshire Advertiser and the Staffordshire Sentinel asking for particulars of any suitable premises which were available. At the next meeting an analysis of these school returns was presented and this confirmed the earlier optimism.

	Capacity of School rooms.	Capacity of Classrooms.	Total Capacity.	Average Attendance.
Public Elementary Schools.	5031	274	5305	3663
Public Elementary Schools in course of provision.	592	---	592	----
Private Adventure Schools.	227	---	227	200
TOTAL	5850	274	6124	3863

1. Minutes of the Hanley School Board: Meeting 15 March, 1871.

	Capacity of School Rooms.	Capacity of Classrooms.	Total Capacity.	Average Attendance.
Other Rooms: Brunswick Chapel.	134	10	144	
Hope.	247	--	247	
Tabernacle.	236	--	236	
Providence Square.	315	--	315	
TOTAL	6782	284	7066	3863

It also produced figures which bore a striking similarity to those presented at a meeting of clergy and lay people held at the National School Rooms, Lichfield Street, Hanley on October 26 1870 - a meeting called to float an education fund which would allow the church to apply for building grants from the government before such grants were suspended on 31 December 1870, and a meeting attended by several members of the School Board. This meeting accepted the following statistics:

Estimated population of Hanley and Shelton	42,500	
Children requiring elementary education	7,083	
Accommodation available	6,115	(based on the space requirements of the act)
Deficiency	1,128	
Cost of remedying the deficiency £	3,000	[1]

The coincidences are remarkable - so remarkable that they call into doubt both set of figures.

1. Staffordshire Sentinel 29 October, 1870.

In the first place the church figures of October do not reflect genuine need - they are simply yet another acceptance of Horace Mann's assumption that one sixth of the total population would be in need of elementary education at any given time. [1] This produced a requirement of 7,083 places, a target which the School Board conveniently met. In this, it was helped by the fact that the sole criterion taken for the provision of accommodation was the space requirements of the Act (ie 8 square feet per child) which allowed premises to be taken into account regardless of other factors such as suitability. In fact, it seems probable that the only information which can be seriously considered is that for accommodation actually available and in use at the time which amounted to 6,115 places in October 1871 and 6,124 places in the first School Board census. And it was also possible that almost one third of this accommodation was unused. As for the rest, it was probably no more than an attempt by the Board to cover all eventualities without being forced into an extensive and expensive programme of school building. It was also rapidly overtaken by events.

For, by the time of the next meeting on 17 May 1871 impatient of the delays imposed by the wait for the national census, the census sub-committee had carried out its own survey and was able to make its second report. [2] This indicated that there were in fact 8,126 children between the ages of 3 and 13 living in the borough. Almost two thousand of these could be discounted,

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1. See page 26.
2. The census sub-committee employed ten enumerators at a cost of £15 who worked during the week ending the 6th May. They apparently met with little opposition and few heads of family refused to give the required information. (Stafford - shire Sentinel 22 April, 1871).

however, either because they were below the age of 5 and not, therefore, to be compelled to attend school, [1] or because they were already attending schools which were not public elementary schools or which were not within the boundaries of the borough. This meant that accommodation was required for 6,187 children, almost 1,000 fewer than was anticipated in the earlier report. And, not unexpectedly the assessment of available accommodation kept pace with this reduction; the figures reverting back to 6124 places, comprising only existing schools. [2]

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1. The drafting of bye-laws to cover the new education service was considered at the previous meeting (19 April 1871) and it was decided to use the bye-laws drawn up by the Bolton School Board as a model. These merely recommended parents to send children under the age of five to school provided that suitable accommodation was available.
2. The complete figures contained in the report of the census committee presented to the full board at its meeting on 17 May 1871 are as follows:

Number of children between the ages of 3 & 13.	8126		Public Elementary Schools. 5031
Children of 3 & 4 not attending school.	1289	1,939	Public Elementary School Classrooms. 274
Children atteding schools outside the Borough.	250		Public Elementary Schools in course of erection. 592
Children attending schools not Public Elementary Schools.	400		Dames' Schools. 227
Accommodation required for.	6187 pupils		Total Accommodation Available 6124 places.

With a deficit of no more than sixty three places the continued optimism of the board members was undoubtedly justified and they wholeheartedly agreed with the conclusion of the Census Sub-Committee that "for the present the Board will not have to provide any additional accommodation". It is also unlikely that anyone disagreed with the concluding statement that "there are about 1800 children not attending school today but under the bye-laws, when sanctioned, the Board will be able to enforce attendance". In short, the newly acquired evidence merely confirmed the major policies on which the majority of members had fought the election, namely, that a major school building programme was not necessary in Hanley and that the main energies of the School Board should be directed towards compelling to attend school those children who were not already being educated.

This being so, why then, within the space of ten years, did the Hanley School Board change its policy? Why did it decide that a school building programme was necessary and why did it allow this programme to become so large that it placed the School Board in direct competition with the very churches which it had set out to protect? Much of this development does not concern us here since it took place towards the end of the century when the introduction of compulsory schooling had so increased the demand for school

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1. The deficit was in fact immediately amended on the news that the Roman Catholics would not complete all of the new school rooms planned and, as a result, there would be 185 fewer places.

places that the voluntary agencies found it difficult to cope[1]. and when the abolition of school fees had so undermined the finances of the church schools that they could longer effectively compete with the rate supported schools of the School Board.[2]. But it was during the life span of the first Hanley School Board, that the seeds of this development were sown and the problems with which the members of that board grappled were those which were to underlie the future changes in school provision in the borough. These included the rapid rise in population which made the building of schools by one agency or another a regular necessity; the changing distribution of that population within the town; the inequalities produced by the denominational pattern; and the constant reassessment of quality which was to take place during the remainder of the School Board period.

School Accommodation and Population Growth

Hanley was the product of the Industrial Revolution. In 1700 it was one of a number of moorland villages involved in the manufacture of pottery and its population, together with that of the neighbouring village of Shelton was less than one thousand. By the end of the century the villages were townships; the pottery industry was growing

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1. Although compulsory schooling appeared to be included in the 1870 Act (if the School Boards wished to take local powers), it remained a myth rather than a reality and it required two further acts of Parliament, in 1876 and 1880 before any semblance of compulsion was achieved.
2. Free schooling became a reality in 1891.

rapidly, particularly in the centres located on the eastern outcrop of the North Staffordshire coalfield; and their combined population was approaching eight thousand, making it second only to Burslem among the industrial centres of the district. During the nineteenth century growth was even more spectacular and the townships of Hanley and Shelton, (which were, in 1857, to form the borough of Hanley) benefiting from a central location, reached a position of

YEAR	POPULATION	INCREASE BETWEEN CENSUSES	% INCREASE BETWEEN CENSUSES
1801	7,940		
		1628	20.5
1811	9,968		
		2988	29.9
1821	12,956		
		3452	27.4
1831	16,408		
		4156	25.3
1841	20,564		
		4796	23.3
1851	25,364		
		6589	25.9
1861	31,953		
		10,023	31.3
1871	41,976		
		6367	15.1
1881	48,343		
		6503	13.4
1891	54,846		
		6753	12.3
1901	61,599		

The Growth of Population in Hanley 1801 - 1901.

pre-eminence among the growing pottery towns - a position which has been maintained down to the present day. And in the process the population rose from 7,940 in 1801 to 61,599 in 1901.

Such a rapid growth of population obviously had important implications for the agencies concerned with the provision of schools, for, each year they had to cater for an increased number of potential scholars and this placed an enormous strain on their limited resources. The School Board was no exception. In fact, by a quirk of fate, the date of its establishment was such that the population expansion was bound to be in the forefront of its deliberations and was to remain there for the next ten years at least. For it was in the decade from 1861 to 1871 that the population of Hanley grew most rapidly both in real terms and in terms of rate of growth. Prior to 1861, the population had grown at an average rate of between 2.3 and 2.9 percent; representing an annual growth ranging from 160 a year at the beginning of the century to over 650 a year after 1851. The ten year preceeding the establishment of the School Board, however, saw the population increasing at more than 1000 a year and the average rate of growth for the decade was over 3.1%.

Faced with such an acceleration in population growth the members of the School Board did not know which way to turn. On the one hand, they recognised that the voluntary agencies had, with difficulty, managed to keep pace with the limited demand for education which had existed up to that time. But could they assume that the same voluntary agencies would be able to cope if the rate of growth continued to accelerate? And there was no evidence in 1871 to suggest that it would not, since the staple industries of the town, pottery, coal and

iron were still flourishing and people were still flocking into the area from the surrounding districts? Obviously such an assumption was potentially dangerous and it seems likely that from the outset the idea of the School Board taking an active part in future school provision was never far from the minds of its members. In fact, although the members of the first School Board were not to know it, the growth of Hanley had reached its peak during the decade 1861 to 1871 and succeeding census returns were to show a rapid fall off both in absolute growth and in rates of growth to levels similar to those experienced earlier in the century. After 1881, therefore, general population trends cannot be used to explain the decisions of successive School Boards to embark on school building programmes which were both lavish and expensive.

Accommodation and Potential School Population

The growth of population, however, was not the main concern of the School Board. Its major preoccupation was with the potential school population and this, although obviously related to total population, could be calculated in so many ways that confusion was bound to result and options had to be kept open. That the members of the School Board were prepared to do this emerges clearly from their deliberations. In fact after six months of heated debate only one thing had been decided for certain - the maximum number of children who could attend school. This figure was apparently clearly defined in the 1870 Act which enabled School Boards to make bye-laws to compel the attendance at school of all children not less than five years of age and

not more than thirteen years of age.[1] The Hanley School Board was not slow to adopt this principle and the compulsory clause, as promised, became the centre piece of the new bye-laws and it was stated in language suited to the occasion.

"Parliament and the united voice of the country recognises that ignorance is the fruitful source of poverty and crime and the Education Act is intended to extend the blessing of education and thereby promote national prosperity, virtue and happiness. To this end the School Board of Hanley, in accordance with the powers vested in them, have made Bye-Laws which require the attendance at school of all children between the ages of five and thirteen years. Parents and Guardians refusing or neglecting to comply with such requirements render themselves liable to a fine unless there be reasonable excuse for absence".[2]

Given this very reasonable aim, the School Board could at most be expected to provide accommodation for 6,134 children - a figure very much in line with their estimates of available school accommodation. But, such an attainable goal was not to be and, bowing to the precedent set in Bolton whose bye-laws were used as a model, pressures from outside the Board and dissent among its members, a further clause was added stating that "the Board also recommended them (parents and guardians) to send their children under five years of age to Day schools provided with suitable accommodation for Infants, that they may be trained in habits of cleanliness,

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1. Bill to provide for public elementary Education in England and Wales 1870 (33) 1. 55. Section 74.
2. Bye-laws drawn up by the Hanley School Board on 21 June, 1871.

order and punctuality and early acquire a love of school".[1] And, with one sentence, the School Board immediately increased the potential school population to all children within the age range of three to thirteen years, a total of 8,126 children comprising 19% of the total population of the borough. A school age population of this size was obviously far in excess of existing accommodation but, in accepting it, the School Board was merely reflecting the existence of a strong body of opinion which favoured such an early start to schooling.

The pressure to do so was enormous. In the first place there was the simple matter of precedence. Children of three and four years of age - and even younger - had traditionally been allowed to start school and the 'Babies class' was an integral part of most Infant Schools. Although, often for the wrong reasons, many parents valued a service which relieved them of the need to look after their children during the day and they were prepared to pay for it. And, as far as the members of the School Board were concerned, who were they to end such a service when the only alternative for single parent families or for families with working mothers might be to place their children in the care of child minders or baby farmers - an alternative which was far worse than any of the Dame schools which they found so easy to condemn? Furthermore it would have been unreasonable to expect the Hanley School Board of 1871 to attempt to resolve its problems by imposing restrictions on the extent of schooling at a time

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1. Bye-laws of the Hanley School Board: 21 June 1871. Attendance among young children was already widespread in Hanley (see page 194) and, to a considerable degree, the School Board was simply reflecting the existing situation in the town.

when uninformed opinion was ignored and when informed opinion was moulded by an endless stream of horror stories which highlighted the inadequacies of the education system.

"Edward Walley, aged ten, was summoned on a charge of assaulting a boy named Thomas Mandley. The boy was questioned by the magistrates as to his knowledge of the nature of an oath and he betrayed a lamentable state of ignorance. The only sort of swearing he had any notion of was that practised in the streets. He had never been taught anything of God, knew nothing at all about the devil and could not tell what the Bible was".[1]

The churches and the schools could only stand indicted! What was needed was more education for more people, not less. And the proponents of this case were strongly represented on the Hanley School Board itself, with the workingman's representative, William Wood their great champion. Never slow to point out the inadequacies of the existing sectarian system, he went so far as to propose the immediate building of four new infant schools to cater for the 1,289 children of three and four who were acknowledged by the Census Sub-Committee not to be at school.[2] Such a proposal caused considerable alarm among the members of a body which was trying to convince itself that no school building programme was necessary, and it required the combined efforts of the Chairman, Mr Wragge and the Mayor, Mr Pidduck to persuade him to withdraw his motion.

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1. Staffordshire Sentinel: 24 June, 1871: Reports of the proceedings in the magistrates courts.
2. Ibid: Report of the meeting of the Hanley School Board held on 21 June, 1871.

The acceptance of a three to thirteen age base for the calculation of the potential school population, presented immediate problems for the School Board and at the meetings in May and June 1871 the main preoccupation was with reducing these problems to manageable proportions so that they could be resolved without building new and expensive schools. This could be done in two ways; either by reducing the potential school population or by increasing the available school accommodation and the Hanley School Board attempted both.

That there were 8,126 children of school age living in the borough at the time of the Census was never challenged.[1] Any attempt to reduce the age-range was opposed particularly by the workingmen's representative. Deductions could be made however, on three counts - for children educated in schools other than public elementary schools; for those educated outside the borough of Hanley; and for all three and four year olds not already attending school. These deductions accounted for 1,939 children, the vast majority being in the third category (1,289). In fact, there was so little information concerning the other two groups that in the first report, presented at the meeting on the 17 May, 1871 the Census Sub-Committee made percentage deductions - 5% for children attending schools other than public elementary schools (400 children) and 3% for those educated outside the borough (250 children). This left 6,187 pupils requiring school accommodation and, when an unspecified allowance was made for unavoidable non-attendance, the Board had little doubt that the immediate demand for school places could be met from existing accommodation.

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1. See footnote 2 to page 40 for the complete returns.

In fact, as we have already seen, this figure was a considerable reduction on the first estimate of demand and it gave the Board the opportunity of removing from the list of schools some of the more unlikely premises. So much so that, at the meeting on 21 June 1871 it was stated that accommodation existed in efficient schools for 4,391 and that a further 654 places were in course of provision at these schools, leaving an apparent deficit of 1,142 places.[1] This deficit was "not the true picture because deductions must be made for unavoidable non-attendance"[2] and the Board decided that if a further four schools were rendered efficient an additional 796 places would be available and there would be no accommodation problem.[3]

This juggling with figures was not without its critics, both within the Board itself and among the general public. Inevitably the disgust felt by the members of the School Board was expressed most forcibly by William Wood and at the meeting on 21 April, 1871 he proposed that "we (the Board) shall not take into account any school not carried on as a public elementary school ..... and, before we accept any other

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1. Minutes of the Hanley School Board: 21 June, 1871. For a copy of the complete returns see Appendix A.
2. Minutes of the Hanley School Board: 21st June, 1871.
3. Minutes of the Hanley School Board: 21st June, 1871. The schools were 1) the New Connexion Sunday School, Bedford St (270 places) 2) the New Connexion Sunday School, Palmerston St (115 places) 3) the General Ragged School, Bryan St (204 places) 4) the Unsectarian Schools, Etruria (207). In each case capacity was calculated on area, giving 8 square feet per child.

school several points should be taken into consideration; one should be whether education could properly be carried on in such a school and another whether or not it would be more economic to build a new school".[1]

His proposition was inevitably defeated but it was, as we will see later, to have far-reaching implications when future decisions were made concerning school accommodation.

A few days before, evidence of dissatisfaction with the policies of the School Boards in North Staffordshire had appeared in the local press. In a letter to the Staffordshire Sentinel, Mr J. W. Thomas of Penkhull criticised the decision to exclude children between the ages of three and five from their calculations. "While the popular idea has provided that 1 in 6 of the population is of school age (viz from three to thirteen), the ratio appears to be more nearly 1 in 4 ..... The School Boards take no cognisance of these children (those who were three or four years of age) and need make no provision for them. The government, on the other hand, acknowledges them and makes grants for their tuition..... The accommodation provided by the School Board might, therefore, be ample by their calculation but insufficient for the scholars in attendance ..... and a district may be considered perfect in attendance when far removed from it".[2]

That the members of the Hanley School Board were aware of the danger of their assumptions emerges from their deliberations at the next meeting, held on 17 May 1871, as does the fact

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1. Staffordshire Sentinel: 22 April, 1871: Report of the Meeting of the Hanley School Board held on 19th April 1871.
2. Staffordshire Sentinel: 15 April, 1871: Letter from J. W. Thomas of Penkhull.

that a potential school population of one sixth of the total population was never far from their minds.

Mr Powell - "If we had taken the percentage adopted by some school boards instead of taking a census we might have arrived at a very different result; but it is still quite possible that the Education Department might apply the percentage to us" (refering to the government estimate of the school age population as 1 in 6).

Mr Ball - "But surely they will not adopt theory against fact".[1]

So Horace Mann's estimate of 1851 still remained, twenty years later, suspended, like the sword of Damocles, over the heads of the Hanley School Board, ensuring that its members retained a suspicion that a great increase in school accommodation might be needed and half preparing them for that eventuality, should it arise.

Statistical sleight of hand however skilled - and the fumbling efforts of the Hanley School Board were not particularly distinguished in this direction - could be no more than of cosmetic value and it was not long before pressures were building up which would help destroy the illusions - illusions based on a simplistic interpretation of average statistics - of those honourable representatives of the newly formed borough. These pressures arose from three sources. The first was the simple fact that population growth has to be translated into the more complex matter of town growth and this can destroy any set of deductions based on

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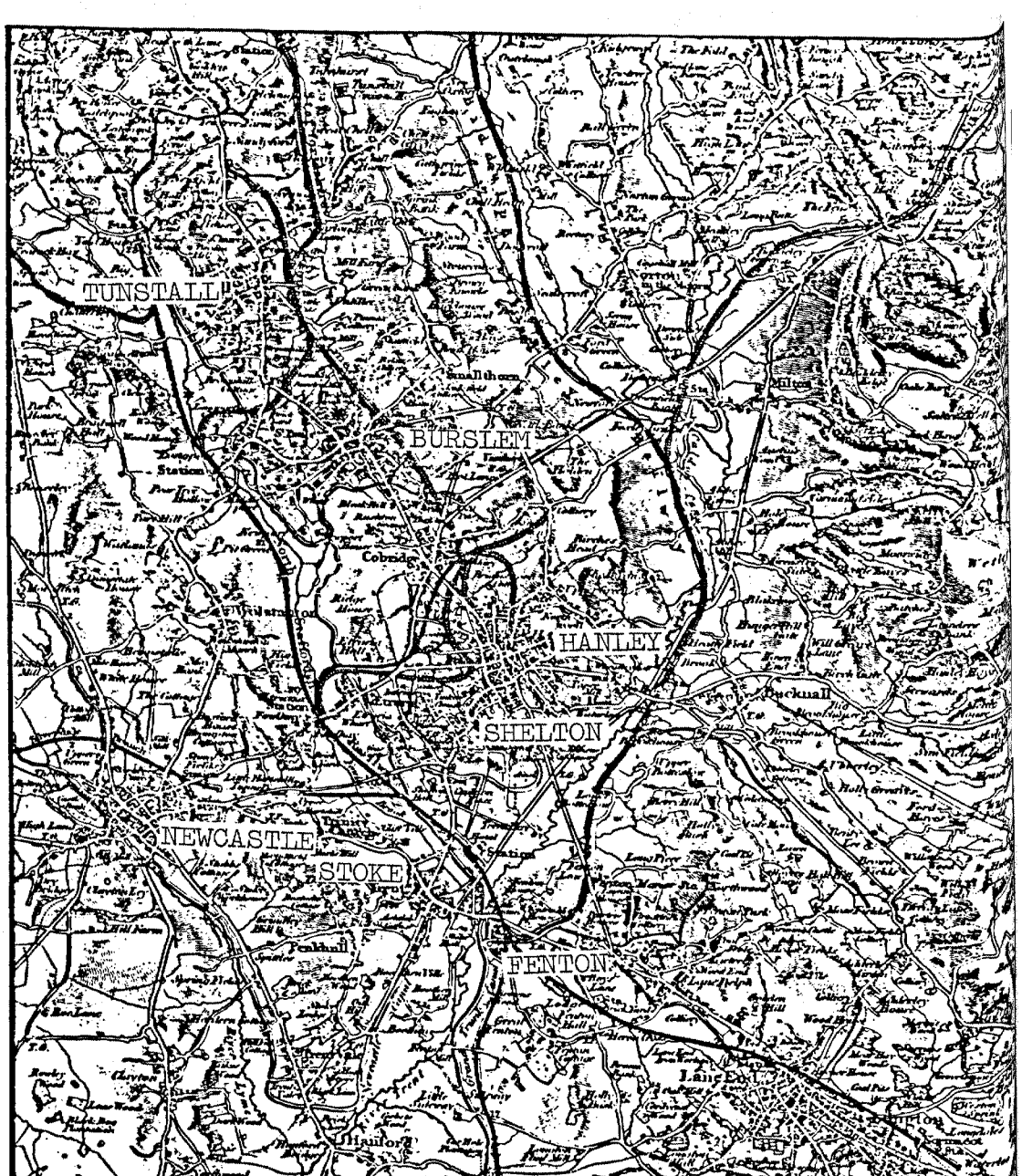
1. Staffordshire Sentinel: 20 May, 1871: Report of the meeting of the Hanley School Board held on 17 May, 1871.

demographic averages. The second lay within the education system itself for, in making their decisions, many members of the School Board appear to have assumed that they were dealing with a single unified system, and the voluntary system of 1870 was far from that. The third, the most important, and the most insidious lay within the minds of the members themselves who could not fail to view their problems through a haze of preconceptions, chief among which was the idea of efficiency - efficiency of teachers as indicated by results, efficiency of departments, efficiency of schools and efficiency of school buildings. And once such an assessment was introduced, based, as it had to be on qualitative rather than quantitative foundations, the floodgates could be opened at any time.

School Accommodation and urban growth

Any attempt to describe the problems of school provision in terms of population averages was doomed to failure and that of the Hanley School Board in 1871 was no exception. For the use of demographic averages must, to some extent, assume a fairly close relationship between the demand for schooling and the location of schools within the town and a glance at maps - indicates that this relationship did not in fact exist.

The schools in Hanley (excluding dame schools) were clustered together in a broad arc running from north to south in the western half of the borough. To the east of this 'golden crescent' of elementary education there were no more than three schools and three adventure schools, held in chapel premises, to meet the educational needs of more than half of the town. The growth of this concentration of



NORTH STAFFORDSHIRE POTTERIES c. 1850
(Scale one inch to one mile)

schools within a comparatively small area was not coincidental and it is easy to see the close relationship which exists between the location of the schools and the growth of the town itself.

The Borough of Hanley, as it was constituted in 1857, was formed by the amalgamation of the two separate townships of Hanley and Shelton. This change of political status was merely a recognition of a process of interaction and inter-building which had been taking place for many years and which had accelerated enormously during the middle decades of the nineteenth century. The two townships covered the spur of high ground between the valleys of the Trent and its tributary the Fowlea Brook; the larger area in the west comprising Shelton and the steeper eastern slopes comprising Hanley. At the beginning of the eighteenth century both townships were made up of a scatter of isolated hamlets, each dependent upon the coalmining or pottery industries. Of these settlements, the biggest were situated on the main road between the ancient centre of Stoke-upon-Trent and Burslem, the most important of the pottery manufacturing centres to the north. These became the villages of Handley Green and Shelton - the former growing up where the road from Newcastle to Ashbourne crossed the north south road, the latter strung out along the road itself as it climbed from the lowlands of the Trent Valley. By 1800 both had become well defined centres with important pottery and coalmining industries and the population was growing rapidly. Within twenty years this had given rise to ribbon development along the roads serving the two townships which, in turn, led to the absorption of some of the smaller villages, such

as Northwood, and eventually to the coalescence of the two major settlements. From this period onwards the process of urban growth appears to have taken place independently of local government boundaries, and the infilling of the areas between the main roads rapidly forced the two townships into the unmistakable town of Hanley; its origins betrayed only by its elongated shape and the dominant position of church of St. Mark at Shelton. In fact, so complete had the process been that by the middle of the century no one, standing on the steps of Hanley town hall, could have suspected that the buildings across the square and little more than fifty yards away, were in the neighbouring township of Shelton. And development after 1850 completed the disguise as building extended eastwards across the spur and onto the steeply sloping land above the Trent, completely engulfing Northwood and absorbing the previously isolated settlement of Joiners Square. Development in the Shelton area was less extensive, partly because the southern margins of the town had become a superior residential district with large detached houses and villas for the pottery manufacturers, and partly because the Fowlea Valley to the west was so heavily industrialised that there was little room for further house building among the collieries, iron mines and blast furnaces of Lord Granville's Shelton Company. Only in the Tinkersclough area was there room for large scale development among the marl holes and spoil heaps, and here housing was already pushing out towards the hitherto isolated village of Etruria, site of Josiah Wedgwood's pottery.

The efforts of the voluntary agencies to keep pace with this development are reflected both in the date and the location of the major schools in the town. Unfortunately the matching was far from perfect, particularly with regard to the timing of school provision and it is clear from the table that school building was concentrated into a number of very limited periods which often bear little relationship to the educational needs of the town.

SCHOOLS IN HANLEY: 1871 [1]

DATE	SCHOOL	AGENCY
1816	St John's Hanley	National Society
1818	Hanley British	British & Foreign Society
1838	St Mark's Shelton	National Society
1852	Hanley Ragged School	Private Subscriptions
1856	Ashley St Ragged School	Private Subscriptions
1858	Bryan St Ragged	Private Subscriptions
1858	Trinity	National Society
	Northwood	National Society
1860	Bethesda	New Connexion
1861	Wellington	National Society
1863	Hanley Wesleyan	Wesleyan Church

During the eighteenth century school provision in Hanley was very limited and, apart from the dame schools and child-minding agencies which undoubtedly existed, the town was served only by a small number of free schools. These were charitable institutions, endowed by a few public spirited individuals and designed to provide an elementary education for the children of the poor.

1. Victoria History of the County of Stafford. Volume viii. pp. 315 - 319. University of London. 1963.

The largest and most important were situated in Etruria, Bucknall, Cobridge and Hanley itself. All were underfinanced, all struggled to survive and all were closed by the early years of the nineteenth century. Apart from these free schools, the only other formal agencies for education available to the children were the Sunday Schools, particularly the non-conformist Sunday Schools which grew up during the last quarter of the eighteenth century. These were more numerous and could cater for a large number of children, although the education provided was rudimentary to say the least. Some of the Sunday Schools also provided evening classes during the week and a few of them were to provide the basis for future day schools. Such a provision was obviously totally inadequate and, even allowing for a large number of ephemeral places of education which undoubtedly must have existed, there was obviously a great need for action in Hanley and in the North Staffordshire Potteries as a whole.

The possibility of such action was increased enormously when the Anglican church established the National Society for the Promotion of Education for the Poor in the Principles of the Church of England in 1811 and the dissenters, not to be outdone, formed the British and Foreign Society in 1814. This activity on a national scale was not slow to bear fruit locally and in 1816, at a cost of £1,000 the first national school was built near to St John's church in the township of Hanley.

With this money, raised by public subscription and by the National Society and diocesan effort , accommodation for three hundred boys and girls was provided in a building described as being "neat and commodious, devoid of ornament and only adapted for utility" [1] - but hardly adequate for a population approaching 11,000. Two years later the first British School in the Potteries was opened, in Pall Mall, Hanley, and it was a fitting monument to the growing strength of non-conformity in the district.

"The British School is a superb edifice, fitted up in the best manner possible, at considerable expense, and the upper room is not exceeded in elegance and convenience by any room for similar purposes in the country".[2]

But an imposing building does not necessarily make a good school and, while the National School was to be the first of many in the town, the school in Pall Mall was to be the first and last effort of the British and Foreign Society in Hanley. Built to house 500 children it was never fully used and in 1843 there were only 280 pupils on the register and the average daily attendance was 230.[3] The school was also heavily in debt and it is no surprise to find that by 1868 the building was no longer used for elementary education. The failure of the British School is perhaps surprising in a district where the non-conformists greatly out-numbered

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1. Shaw, S., History of the Staffordshire Potteries. G. Jackson Hanley 1829. p42.
2. Ibid. p42.
3. Ward J., History of the Borough of Stoke-on-Trent. W. Lewis. London.1843. pp395-396.

the congregations of the established church,[1] and where many of the pottery manufacturers were active chapel-goers. It can undoubtedly be attributed, however, partly to the failings of the society itself, and largely to the rivalry which existed between various branches of non-conformity - rivalries which were probably unusually strong in a district which had been the birthplace of the most recent schism which had severed the Primitive Methodist sect from the Wesleyan church between 1808 and 1812. In fact, this antipathy between the various branches of the non-conformist church was to undermine its contribution to the development of elementary schooling in Hanley and to render it much less effective than it might have been.

The initial enthusiasm for school building which had greeted the establishment of the church societies died as quickly as it had arisen and no new schools were to be built in Hanley for twenty years, during which time the population almost doubled. Once again it was the interplay of national and local circumstance which was the determining factor in this development - or lack of it. The poverty of the area and the lack of a well-established manufacturing class, capable of endowing new schools, made self help unlikely, and, for the early part of the period at least, the financial demands on the two large voluntary societies were such that further aid from this source was not forthcoming. Not until

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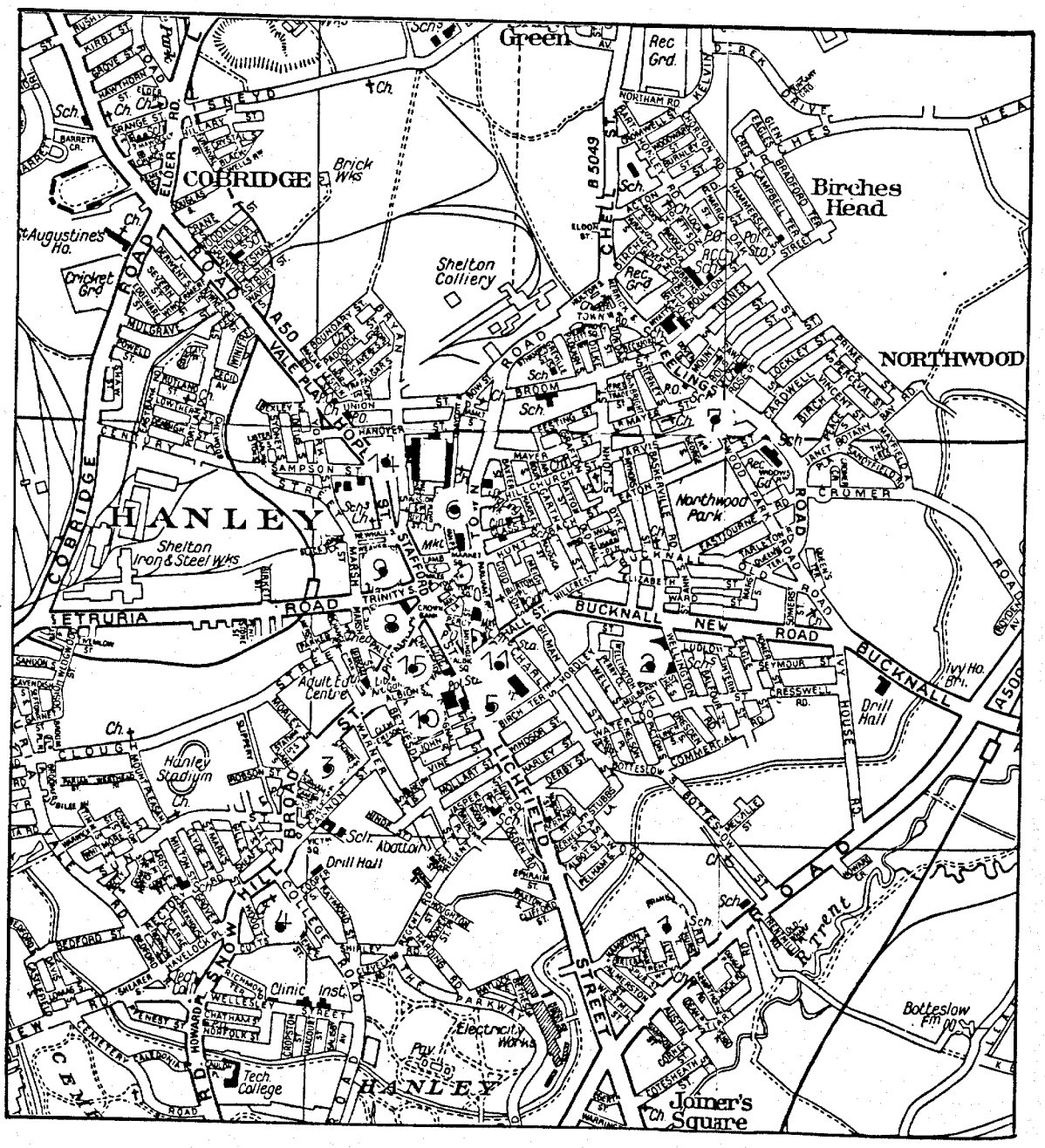
1. Evidence to support this statement is plentiful. For example J. Ward quotes the numner of Sunday School pupils in the Burslem procession to celebrate the Queen's Coronation on 28 June 1838 as Church Sunday Schools 790 Non Conformist Sunday Schools 3460. And the religious census of 1851 shows a similar picture for Hanley. Ward, J., (1843) op. cit. p245.

1833, when government aid was first granted, was there any possibility of changing this situation and, even then, no massive expansion of school building could be expected since the government contribution for the whole of England was no more than £20,000. During the 1830's, however, the economic position began to improve and, with the aid of government grants, five new National Schools were built in the Potteries, including St. Mark's at Shelton which opened in 1838, less than five years after the church itself had been built using grants from the Church Commissioners. This sudden and belated interest in Shelton was not unwarranted for, by 1830, the population was larger than that of Hanley and it contained some of the worst housing. The choice of site was also significant, indicating a desire to meet the needs of the population of the southern part of the township which had hitherto been almost completely neglected and leaving the inhabitants of the northern part of Shelton to use schools located in the neighbouring township of Hanley. This, in itself, indicated that the pressures of urban growth had already broken down the boundaries imposed by an ancient system of ecclesiastical and local government and foreshadowed the establishment of the Borough of Hanley some twenty years later.

The first results of government intervention were disappointing not only in Hanley but in the country as a whole and in 1839, partly in order to exercise greater control over the use of the grant, the Committee of Privy Council on Education was set up. Any expectations that this would result in a rapid expansion of the school building programme were quickly disappointed for, fearing that the newly created inspectorate would intervene in the running of the

schools, the National Society decided to accept only £5,369 out of a possible government grant of £19,895. [1] Suspicion of government intentions was slow to clear and, as a result, the activities of the voluntary societies were less effective than they might have been; in fact, in Hanley they were virtually non-existent and it was to be another twenty years before the National Society opened another completely new school. Reasons for such an enormous delay are difficult to come by, particularly since nationally the period was marked by an expanding programme of school building. Local factors must, therefore, have played an important part in the lack of growth in school provision in Hanley over those decades, and it is difficult not to isolate as contributory factors the poverty of the district, the small size of most of the local factories and the resulting lack of wealthy manufacturers capable of supporting voluntary efforts. In addition, of course, the 1840's was a period of great unrest in the district and this, added to fluctuations in the prosperity of the basic industries, may have worked against investment in the town. Whatever the causes, the net result was that the only schools built in town were the product of local initiatives, usually designed to meet the needs of the very poor. The first, a free evening school, was opened in 1852 at the workingman's refuge on Chapel Fields and a second was built in Ashley Street in 1856 - both catering for areas of poor housing near to the town centre. In 1856 these became Ragged Schools, dependent upon private subscription for their maintenance and operating as normal day schools. Two years later a third Ragged School was built in Byran

1. Sturt, M., The Education of the People Routledge & Kegan Paul. London. 1967. p96.



For key see page 364.

LOCATION OF SCHOOLS IN HANLEY: 1860 - 1870

Street, near to the original school and this meant that school provision in the town had been increased by just over four hundred places in the space of twenty years, during which time the population had increased from 16,408 to 25,364.

By any yardsticks, even those of the mid-nineteenth century, the efforts of the voluntary agencies seem to have been little short of disastrous and, after nearly half a century of work - albeit spasmodic work - what was there to show? Five schools in a town with a population approaching 30,000; fewer than 1500 school places to meet the educational needs of a potential school population which was nearer 5,000 and large areas of a growing industrial town completely devoid of formal educational facilities of any kind. In fact, only in the central area of the town was there any effective provision for elementary schooling and, even here, the rapid influx of immigrants into that twilight zone of cheap, poor-quality and run-down housing which lay behind the prosperous facades of the commercial centre of the North Staffordshire Potteries, had completely outstripped the supply of school places. To such an extent that much of the evidence used to condemn the voluntary system was drawn from observations made in the unpaved and undrained courts and alleys of this area, where children played and worked at times when they should have been at school, where parents so patently failed in all their duties and where entire communities seemed to lie beyond the reach of any law except the law of the street. Outside this educationally privileged zone of socially under privileged families it was left to the dame schools and the Sunday schools to provide education

for a population which was growing at an ever increasing rate, as building spread along the main roads out of the town and as speculative builders covered the land between with row after row of terraced housing. Children living in these areas - areas as large as the whole of Northwood, Joiners Square and Tinkersclough - faced a walk of up to half a mile to the nearest school; and the majority of them were not prepared to make this effort. To our modern eyes such distances may not seem large but in mid-Victorian England attitudes were significantly different. The basic concept of schooling was not well-established among working class families and the sense of neighbourhood appears to have been particularly strong. So much so that the first bye-laws drawn up by the Hanley School Boards included an exemption clause, allowed by the Act of 1870, for all children who lived more than a mile from any school [1] and, what is perhaps even more significant, in that year the mean distance of any home from the nearest school was less than two hundred yards. Twelve years earlier, however, the situation was less happy and it showed, not that the voluntary agencies had failed to respond quickly enough to the growth of the town, rather that they had failed to notice that there had been any growth at all.

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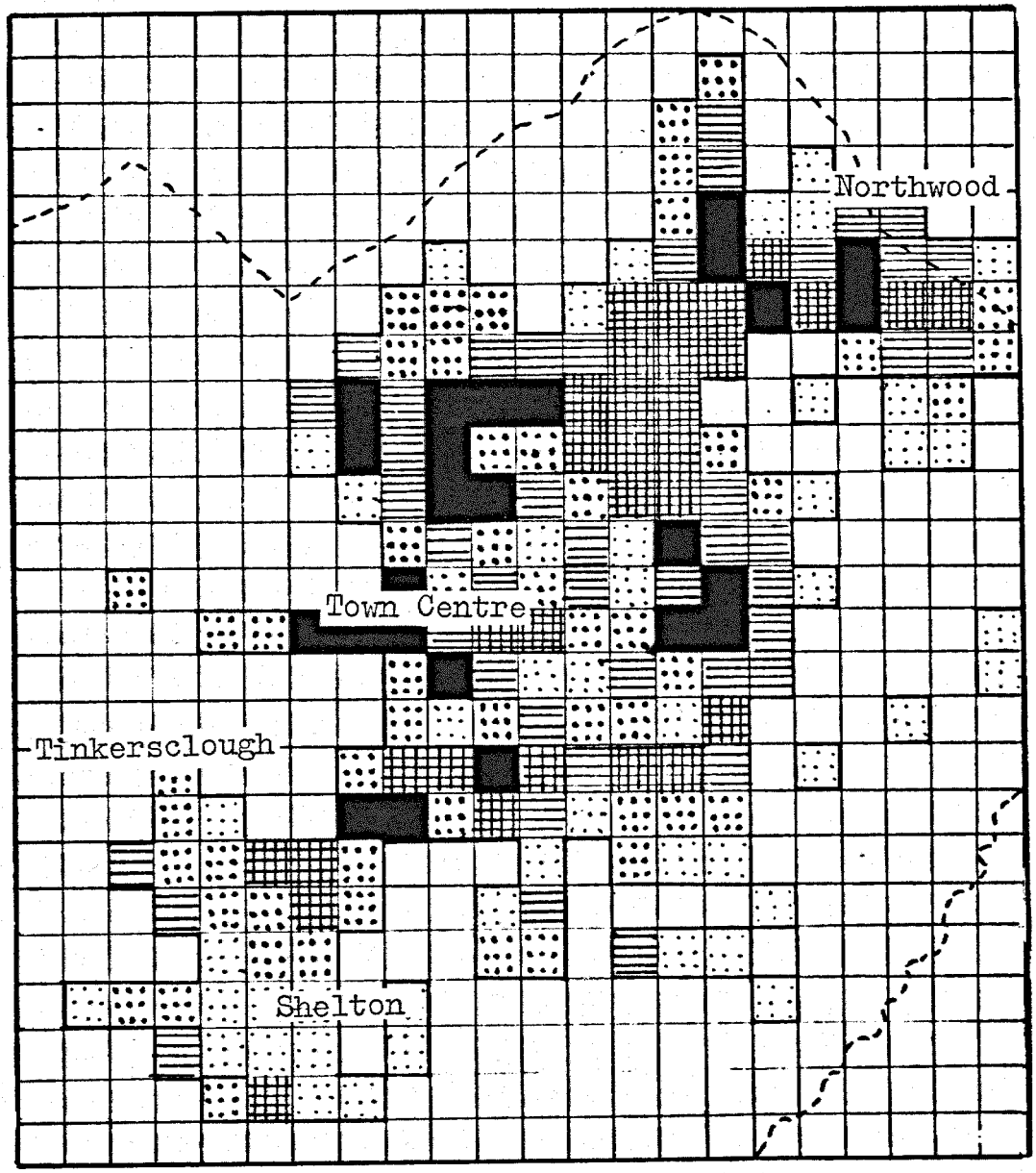
1. This point was raised at the meeting of the Hanley School Board held on 19 April 1871 by the workingman's representative, William Wood, who proposed that "no child under the age of six should be compelled to attend school if there is no school nearer than half a mile and that no child under six should be compelled to go more than a mile". The meeting accepted this resolution.

POPULATION DENSITY: HANLEY 1871



over 500

350 - 500

200 - 350

50 - 200

under 50 persons per 100m^2

0 400m

This apparent indifference ended in 1858. In that year, for reasons which are by no means clear, a building programme was started which, in the space of five years, was to provide the town with seven new schools and more than two thousand new school places. Two of the new schools - those operated by the New Connexion Church at Bethesda and the Wesleyan Church in Lichfield Street - were housed in existing premises and, as such merely added to the congestion of school provision in or around the town centre. Furthermore, the new Catholic schools, which were opened in 1861, were built in Lower Foundry Street, adjacent to the church and near the source of greatest demand which happened to be the area of low cost housing in the centre of the town. It was left to the National Society, therefore, to acknowledge the expansion of the town eastward towards the Trent Valley and it responded by building new schools in Northwood, Joiner's Square and the Wellington district - undoubtedly the areas of greatest need. This was a dramatic response to a crisis situation, the true extent of which was undoubtedly brought home to the schoolbuilding agencies by the rapid upsurge in population after 1851. It also represented a titanic effort on their part, and yet it was an effort which did no more than reduce the deficit in school accommodation; for at no time during the 1860's was the system ever brought into balance, and large numbers of children remained outside the schools and several of the schools were themselves grossly overcrowded. So great was the effort, however, that it appeared to exhaust the resources of the voluntary agencies and from 1862 onwards, in spite of increasing criticism of the education system and the threat

of major reforms which would weaken their position, school building in Hanley was restricted to the enlargement of existing premises.

As a result, the overall deficit between school accommodation and the potential school population remained and the imbalance in provision between the town centre and the areas of recent housing became more pronounced. This emerges quite clearly from the census carried out by the first School Board in the Spring of 1871 which indicated that serious overcrowding existed in four schools - the National schools at Northwood, Wellington and Eastwood Vale and the Roman Catholic school in Lower Foundry Street. Of these, the first three were the only schools built outside the town centre and in them the deficits - ranging from forty four at Northwood to ninety five at Wellington - existed between the available accommodation and the number of children in <u>average</u> attendance which means that the difference between accommodation and the numbers on the roll was even greater and that the overcrowding which might have existed on any given day would have been much more severe. Add to this the fact that as late as 1870, the Tinkersclough area was served only by an "Infant Feeder School" belatedly opened by the Church of England authorities in the local mission church, [1] and it is clear that, while it could be

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1. <u>Staffordshire Sentinel</u>: 23 April, 1871. The school is mentioned in a report of a meeting of the Shelton Parochial Synod when it was stated to have been run by Miss Whittingham and to have an average attendance of about 40.

claimed that the voluntary system had kept pace with the average rise in demand for elementary schooling in Hanley, it had certainly failed to respond to the physical growth of the town and to the spread of housing far beyond the town centre. In fact, by 1870, the voluntary system which, by its very diversity, should have been flexible had managed to produce a fossilised pattern of school provision, reflecting a town which had existed thirty years before but which had since changed out of all recognition.

This failure can be explained only by reference to the pressures under which the voluntary agencies operated. In the early years of the century the lack of school provision in Hanley meant that a crash programme of building was needed simply to meet the growing demand for schooling - and this demand was greatest near the town centre. If school building had continued after 1818 the pattern of accommodation might have reflected the growth of the town. Unfortunately, however, building virtually ceased and with the exception of the National Schools at Shelton, no new premises were built until after 1850. By this time the situation was again critical; all parts of the town, including the centre were under-provided and the pressure on the voluntary agencies to act was enormous. The result was a period of galvanic activity during which schools were opened with almost unbelievable rapidity. For some of these schools, usually those funded by the National Society, new buildings were provided and these could be located in the areas of greatest need. Others, however, were housed in existing premises - often chapels or Sunday schools - and, since the majority of such buildings were found near the town centre the early imbalance in school

provision was maintained. That it was never remedied in the pre-School Board period can be explained by the fact that after 1862 school building again ceased; a reflection of the exhaustion of the local voluntary effort [1] and in the growing realisation among the non-conformists, in particular, that they lacked the financial base with which to staff and maintain new schools. [2] This more than anything else was to restrict further effort and school building was not resumed on a scale large enough to establish a balance between supply and demand until the School Board, with its greater resources, was well-established.

Initially, the School Board gave little indication that it appreciated the existence of this problem and in its early discussions the pre-occupation with balancing the books in general terms was almost complete. In fact, at this stage, the Church of England was again showing a greater appreciation of the situation and extensions were in hand to the National Schools in Eastwood Vale, Wellington Street and Shelton, all serving areas of obvious need. [3]

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1. The voluntary effort was not helped by the limitations placed on the transfer of resources from prosperous to less prosperous areas.
2. References to the financial difficulties of the School are numerous in the log book of the Bethesda School - the only non-conformist school for which records have survived.
3. Minutes of the Hanley School Board: 21 June 1871. At this meeting reference was made to the provision of 137 new places at Eastwood Vale, 150 at Wellington Street and 247 at Shelton.

By the way of contrast, the School Board, still pursuing its policy of adapting existing premises, had produced little which might have reduced the geographical imbalance in school provision. [1] The very reverse in fact, for at the same time it was actively promoting a policy of compulsory education - a policy which, if successful could only make the situation worse. Evasion, whether deliberate or not, could only buy time, and it brought very little of that. Within a year the pressures were becoming obvious and the School Board was being goaded into action. On 27 June 1872 a letter was received from the Reverend. F. Williamson (H.M.I.) stating that "accommodation is required as follows: Ashley Street 100 Infant places, Market Street 200 Infant places, East Vale 100 Boys, Etruria 203, Tinkersclough 250, Providence Square 247, Brunswick and Hope 141" and recommending that "two large schools be built at Tinkersclough and Hanover Street." [2] The response of the Board was typical; it questioned the statistical basis of the report and tried to prove that a considerable number of children in the Shelton district lived outside the borough boundaries and should not, therefore, be included in their calculations. Once again, however, playing the numbers game served only to postpone the day of reckoning and it was almost exactly one year later that the Providence Square area was surveyed

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1. Minutes of the Hanley School Board: 21 June, 1871. Of the buildings considered at this meeting only the New Connexion Chapels at Joiners Square and Bedford Street might have helped.
2. Ibid: 27 June 1872.

to find a site suitable for a new board school.[1] And only two months after these negotiations were completed for the opening of a new school in the Wesleyan Sunday School, Northwood at a rental of £25.00.[2] This, the first school to be opened - as opposed to taken over - by the Hanley School Board, marked the beginning of a school building programme which, within twenty years, was to make the Board the chief provider of school places in the town and the privileged and irresistible competitor of the church agencies. And a glance at the list of schools opened by the Board gives some indication of the extent to which the need to remedy the geographical imbalance of the system influenced its decisions. The new schools at at Northwood, Broom St., Eastwood and Glass St. were all built in areas which in 1871 suffered from serious underprovision.

SCHOOL	DATE
NORTHWOOD	1874
BROOM ST	1879
GREAT YORK ST	1880
EASTWOOD	1880
BEDFORD ST	1880
CANNON ST	1881
CAULDON ST	1891
GLASS ST	1892

SCHOOLS OPENED BY THE HANLEY SCHOOL BOARD [2]

School Provision and the Denominational Question

Attempts to remedy the imbalances which existed in school provision prior to the active intervention of the School Board in the mid 1870's were handicapped by the fact that the agencies involved did not form a unified system.

1. Minutes of the Hanley School Board: 20 August, 1873.
2. Victoria History of the County of Stafford. Vol. viii pp.315-319.

In fact, although the crude statistical manipulations of the first School Board suggest that its members chose to ignore the fact, the complete reverse was true. The voluntary system, as it existed in Hanley in 1870, comprised the efforts of at least four denominational groups, each working in isolation from the others and often in active competition with them. Such a system could hardly be the most efficient available, leading, as it inevitably did, to fragmentation of resources, duplication of effort and, in many cases, the subordination of the long term needs of the town to more immediate interests such as local rivalry or the desire to score quick points.

Viewed from a distance, it is difficult to appreciate the depth of feeling which existed between Protestant and Roman Catholic, between 'Episcopalian' and Dissenter, between Wesleyan and New Connexion; in short between the major denominations and between the non-conformist sects produced by the schisms of the late eighteenth and early nineteenth centuries. And yet it is important to do so, for it was these feelings which motivated a considerable proportion of the voluntary effort and which weakened the churches in their struggle against the reform movement as it gained in strength during the 1860's. So much so that as late as October 29 1870 when the Elementary Education Act had been passed and the formation of new School Boards was virtually inevitable, Viscout Sandon, in an address to conference of the Archdeaconery of Stafford (to which Hanley belonged), could be urging cooperation with the dissenters as a last

resort if a school board was established;[1] and, in that same week in Hanley itself a meeting of Church of England clergy and lay people decided to start a fund to build schools before the government grant was suspended at the end of the year and to "invite the non-conformists to co-operate since the continuation of religious education was the vital consideration".[2] It was also strong enough to dominate the elections for the School Board when the formation of such a body became inevitable in Hanley towards the end of 1870, and the ill-feeling generated by that contest, and in particular, the role of the Roman Catholics in it, persisted long afterwards. "I would merely like to ask, how is it that if the Roman Catholics could only regard the new Education Act as an 'infamous act', the Reverend Mr Molloy, one of Rome's own priests, should have so eagerly sought and accepted a share of its administration".[3]

The School Board itself, comprising as it did representatives of the various churches, was certainly conscious of the divisions and was only too ready to tread very carefully when sectarian interests might be threatened - threatened in ways which might not be apparent to the casual observer. For example, when it was suggested that a census should be carried out to establish school attendance in the Borough prior to examining the issue of school provision, Mr Powell, a representative of the Wesleyan church replied

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1. Staffordshire Sentinel: 29 October, 1870.
2. Staffordshire Sentinel: 29 October, 1870.
3. Staffordshire Sentinel: 22 April, 1871. Letter from Non Nobis.

that he was certain "that no head of a family would object to supply the simple information as to the number and age of his children but, if inquiry were made as to the schools attended they might take fright, thinking that it was an inquiry into creed". [1] The relationship between the two issues may appear tenuous but it was undoubtedly very real at a time when employment could depend on denominational allegiances, real or alleged.

Given such depth of feeling, it might be expected that the pattern of school provision would reflect the strength of the various denominations in the town. In fact, nothing could have been farther from the truth for, although the non-conformist churches dominated the religious life of the town, [2] it was the Church of England which led in the field of school provision. This was particularly true of public elementary schools

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1. Staffordshire Sentinel: 22 April, 1871. Report of the meeting of the Hanley School Board held on 15 April 1871.
2. The religious census of 1851 gave the following figures for Hanley.
   Non-conformists - 2720
   Anglican - 750
   Only one eighth of the population attended any place of worship. Victoria History of the County of Stafford Vol. viii University of London. 1963. p278.

for which the School Board Census gave the following figures:

DENOMINATION OR AGENCY	NUMBER OF PLACES PROVIDED	% OF TOTAL PROVISION	PLACES IN COURSE OF PROVISION	AVERAGE ATTENDANCE	PROPORTION OF CAPACITY USED
CHURCH OF ENGLAND	2026	48.9	534	1980	97.7
NEW CONNEXION	724	17.6	385	263	36.3
WESLEYAN	616	14.8	-	462	74.9
ROMAN CATHOLIC	337	8.1	120	380	112.7
RAGGED SCHOOLS	443	10.6	-	253	57.1
TOTAL	4146	100	1039	3338	80.5

SCHOOL PROVISION IN HANLEY: 1871 (By Denomination)[1]

The dominance of the established church was virtually unchallenged. Nearly fifty percent of all public elementary school places were in National Schools and since the church had strong links with the town's Ragged schools - to the extent that two of them were housed in church premises - this figure could rise to almost sixty percent. By comparison, the effort of the non-conformist churches was almost puny, the two main sects controlling no more than one school each and little more than thirty percent of the total places. Even so the Wesleyan and New Connexion

1. The Minutes of the Hanley School Board 19 April, 1871.

churches found great difficulty in financing this meagre effort and their schools either closed down or were among the first to be taken over by the School Board.[1] This failure can probably be attributed to the weakness caused by rivalry and fragmentation of effort and to the lack of a strong central agency, such as the National Society, to direct the effort and to maintain it over a long period.

An additional irony was that the failure of the non-conformist churches in the provision of public elementary schools was accompanied by an apparent degree of success in the field of private education for which the churches also provided the bulk of the premises. Comparable figures for 1871 do not exist but a survey carried out by the Hanley police force on behalf of the Factory Inspectorate in 1864[2] showed that this success was largely illusory. The dominance of the Church of England was equally marked here and the

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1. Of the two major non-conformist public elementary schools in Hanley, Bethesda was taken over by the School Board towards the end of 1871 (see Minutes of the Hanley School Board 18 October, 1871) and the Wesleyan School closed during the early 1870's.
2. Report of the Inspectors of Factories: 31 October, 1864 1865 [3473] xx. 429. p525.

SCHOOLS IN HANLEY: 1871

	TYPE OF SCHOOL[1]		SCHOLARS IN AVERAGE ATTENDANCE			% OF TOTAL NO. OF SCHOLARS
DENOMINATION	PUBLIC ELEM.	PRIVATE	BOYS	GIRLS	TOTAL	
CHURCH OF ENGLAND	10	18	1001	937	1938	59.9
ROMAN CATHOLIC	3	0	138	140	278	7.4
WESLEYAN	1	15	265	304	569	15.3
NEW CONNEXION	3	0	115	109	224	5.9
BAPTIST	0	1	12	30	42	1.1
INDEPENDENT	4	10	335	349	684	18.3
TOTAL	21	44	1866	1869	3735	100

position of the non-conformist churches was adequate only in terms of the number of schools operated - 20 compared with the 28 of the Church of England. Of these establishments, sixteen were private schools and, since the total number of children educated in non-conformist premises was little over eight hundred, obviously very small private schools. Furthermore, the churches themselves did little more than provide premises for these establishments, the majority

1. Report of the Committee of Council of Education 1870
187 C406 xxii I.
Page iv - the following definition of school types was given:
A Public School - a school held in premises secured by deed for education with managers acting under the deed who appoint and control the teachers.
A Private School - a school governed by private managers or a committee not acting under any deed.
An Adventure School - a school conducted by a teacher at his or her own risk & on his or her own responsibility.

of which were run by women as private adventure schools.[1]

The existence of such an imbalance between school provision and the denominational allegiance of the population might reasonably have been expected to cause major problems, with serious overcrowding occuring in the schools of the under-represented churches. In fact, this only happened in the case of the Roman Catholic Schools which existed in genuine isolation from the rest of the system and which were seriously overcrowded throughout the period. Elsewhere there appears to have been little relationship between the religious affiliation of a school and the nature of enrolment at that school. The six National schools, for example, were heavily subscribed, with average attendances representing 97% of total capacity. At the non-conformist schools, on the other hand, the situation was very different, with the Wesleyan schools working at no more than three quarters of capacity and Bethesda at 36%. While these figures have to be viewed with caution since considerably higher rates of enrolment were required to maintain such average attendances,[2] it is obvious either that allegiance to the

1. Reports of the Inspectors of Factories: 31 October 1864 1865 3473 xx 429 p525. "Of the sixty five schools in Hanley, forty four are kept by women as private schools".
2. Hanley School Board made an allowance of 10% for unavoidable absence (H. S. B. Minutes 21 June, 1871) while at Northwood Boys School a register of nearly 400 pupils was required to maintain an average attendance of 150 (Northwood National School Boys Dept. Log Book 1870).

various churches was much weaker than was suspected or that factors other than religious loyalty dominated the decision-making process which led to a parent choosing an individual school. William Wood, the workingman's representative on the Hanley School Board had few doubts on the point when, in proposing the building of four new schools so as to make the enforcement of the compulsory clause possible, he said:

"The Denominational schools give instruction of unequal value. In one school in Hanley, capacity of accommodation 727, there are only 263 scholars, although it belongs to a numerous denomination. The members of that denomination do not send their children to the school because they have no confidence in it and, in adopting a compulsory law, we have to make some provision to obviate the injustice of compelling parents to send their children to denominational schools ..... Out of 6000 children at school in this borough only 500 are taught geography, 269 history and 368 grammar - and they are not in the school referred to which is the worst in the town". [1]

His conclusions were undoubtedly justified. The school mentioned - Bethesda - had a long history of problems during the 1860's. At the boys' school there were four masters in eight years while at the girls' school four mistresses passed through in less than four years. Add to this the fact that both schools had serious difficulties

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1. Staffordshire Sentinel: 24 June, 1871. Report of the Hanley School Board meeting 21 June 1871.

in finding monitors and pupil teachers - difficulties caused by the failure of the schools themselves to produce suitable candidates and made worse by the lack of finance to give adequate remuneration - and it was clear that the New Connexion church never possessed the resources to run an efficient school of two hundred and fifty pupils let alone to make full use of the vast Sunday School building. These problems intensified as the decade passed. Pupil teachers came and went with increasing regularity; assistant teachers, who were often either inadequate or dogged by ill health, could not be replaced because there was insufficient money to attract better applicants; and shortages of equipment became ever more serious [2] until by 1869 the Master of the school was engaged in a running battle with the managers.

Bethesda Boys' School Log Book: 12 March 1869

"More assistance needed. The candidate at the last examination for pupil teachers was reported as being under age (there were no suitable candidates among the older boys). His place has been taken by another monitor so that the school has but two teachers instead of three and the numbers are keeping up well."

Bethesda Boys' School Log Book: 24 June 1870.

"Saw Mr Keates requesting assistance".

All to no avail and it comes as no surprise that in the following year the schools were offered to the newly elected Hanley School Board who could maintain them.

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2. Log Books: Bethesda Boys' School and Bethesda Girls' School 1863-71.

Justified or not, the workingman's representative on the Board was quickly restrained by the combined efforts of the Mayor who "could not see how the denominational question had arisen" and the Chairman, Mr Wragge,[1] and his criticism was quickly withdrawn. Such a reaction was predictable. The majority of members of the School Board had strong religious loyalties and, for that reason alone, they were likely to reject any criticism of the denominational effort. And, in addition, might it not have been possible that someone suspected that in introducing a qualitative assessment of the schools in the borough, they would be unleashing a force which would compel the School Board towards a massive school building programme and, in the process, destroy the system which they had so assiduously supported?

School Provision and the Quality of Schooling

On election, however, nothing appears to have been farther from the minds of the members of the first School Board. Bound by individual loyalty to their churches and by promises made during the election campaign, their main pre-occupation, on taking office, was nothing more than to balance the educational books;to establish sufficient accommodation for the estimated school population; and to do this with the minimum - and preferably no - rate funded school building. It must have been obvious to each and every member of that school board that such a course was possible only if every school, regardless of quality, was

1. Staffordshire Sentinel: 24 June,1871: Report of the meeting of the Hanley School Board 21 June, 1871.

taken into consideration. And yet no member of that school board was prepared to do this, for each and every one of them brought with him certain pre-conceptions which made such a decision impossible. These pre-conceptions, apparently highly subjective, were, however, firmly based on the accepted opinions of the day and in this conventional wisdom was established a very clear hierarchy of elementary education - a hierarchy which can be deduced from the following parameters shown in the table on page 81.

The schools held in highest esteem were undoubtedly the efficient public elementary schools, a group which included most of the major denominational schools in the town. In fact, only one National School - that at Etruria - was regarded as inefficient and it was hoped to bring this under the auspices of the Revised Code before the School Board was established. There were, however, several other well-established schools which teetered on the brink of inefficiency. These included the National Schools at Wellington which possessed good premises but suffered from a "serious want of teaching power" [1]; Trinity National School; and the two major non-conformist schools at Wesley and Bethesda, both of which lacked financial backing. It is perhaps indicative of the weakness of these schools that all were quickly taken over by the Hanley School Board.

Private elementary schools were comparatively rare in the Potteries and only one fell within the jurisdiction of the Hanley Board - the Wedgwood Schools at Etruria.

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1. Minutes of the Hanley School Board: 15 March, 1871.

TYPE OF SCHOOL	PREMISES	GOVERNING BODY	EFFICIENT (ie under government inspection)			INEFFICIENT (not inspected)		
			STAFF	FINANCE	GOVERNMENT INVOLVEMENT	STAFF	FINANCE	GOVERNMENT INVOLVEMENT
Public Elementary School	Secured by deed for the purpose of education	A committee of managers	At least one certificated teacher	Public Subscription. School fees. Government grant	Regular Inspection and payment of grant	Certificated or uncertificated teacher	Public subscription. School Fees	None or at most a simple inspection
Private Elementary School	Premises not secured by deed	A committee of managers	At least one certificated teacher	Public Subscription. School Fees. Government grant	Regular Inspection. Payment of grant	Certificated or uncertificated teacher	Public subscription. School Fees	None or at most a simple inspection
Adventure School	Rented or private property	None. The Teacher acts alone	Neither Adventure Schools nor Dame Schools were liable to inspection unless special instructions were given by the Education Department; hence could not be regarded as efficient in the accepted use of the word.			Certificated or uncertificated teacher	Teacher's capital, School fees	None
Dame School	Usually a private house	None				Usually uncertificated and usually women	School fees	None

TYPES OF SCHOOL AVAILABLE IN HANLEY IN 1870

Compiled from information given in the report of the Committee of Council on Education 1870. Appendices p. Lv. ff. 1871 [c 406] xxii. L.

These were described as "excellent premises consisting of Girls, Infants and Boys Schools, all well attended and apparently working admirably", [1] and were regarded by members of the Board as being suitable for making efficient. Significantly, however, these were the first schools to be offered to the School Board early in 1871 provided that "the Board take them immediately and pay before Lady Day; that the teachers are taken as they stand; that the grant is shared between the present managers and the Board accordingly to the length of time each ran the school; and at a rental of £30.00 a year (if sold £463.00)". [2] At the meeting of 17 May the Board decided to accept, provided that "the consideration for transfer was nominal". [3] and within a few weeks the schools had passed out of private hands and were in the process of being made efficient.

Designation as 'efficient' was the ultimate accolade which could be granted to any elementary school and it was a designation which the Hanley School Board was happy to accept as its main criteria for establishing its standards. As a result, although criticism was made of so called efficient schools, the main pre-occupation of the Board in the first months of its existence was with the inefficient schools which made up the majority and which had to be included in their calculations if school

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1. Minutes of the Hanley School Board: 15 March 1871.
2. Ibid: 15 March 1871.
3. Ibid: 17 May 1871.

provision in the town was to match the expected demand. By mid June 1871 a decision had been made. Any deficit would be met by making "all schools at present inefficient into efficient public schools" and by "establishing efficient schools in buildings suitable for elementary schools".[1] William Wood fought a long rearguard action against the acceptance of such a proposal, suggesting instead that only schools which were already public elementary schools should be taken into consideration and that the deficit should be made up by building new schools.[2] His fight was in vain, the motion was accepted and the School Board had delicately placed itself on the horns of a dilemma, namely to define "efficiency" in such a way that the standards were acceptable while, at the same time, ensuring that no school was excluded from consideration in its calculations. Lacking the wisdom of Solomon, the School Board preferred not to attempt such a definition and decisions were made on an *ad hoc* basis, allowing its members to fall back on individual prejudices and pre-conceptions. In short, the School Board allowed to continue a situation which had existed from its very first meeting when members were designated to visit the schools of the town and to present reports on them. A summary of these reports is included in the minutes of the School Board[3] and it clearly shows that,

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1. Minutes of Hanley School Board: 21 June, 1871.
2. *Staffordshire Sentinel*: 20 May, 1871: Report of the meeting of the Hanley School Board held on 17 May, 1871.
3. Minutes of the Hanley School Board: 15 March, 1871.

with or without a definition of 'efficiency', the members felt that they knew enough about the workings of the government system of inspection to establish the criteria on which a school should be assessed. And, lacking the facilities to test results, they concentrated - probably wisely - on concrete matters such as buildings, playgrounds, lighting and ventilation, teaching strength, equipment and the degree of overcrowding.

Even in these areas, however, there could be no question of establishing minimum standards, particularly for the adventure schools which made up a large proportion of the remaining school accommodation in the town. Many of these schools, established and run by individual teachers at their own risk and dependent entirely upon the fees paid by the children, were housed in church or Sunday School premises - premises which might be reasonably expected to be regarded as totally inadequate. In fact, at a time when it was usual for multifarious groups of children to be taught under the supervision of a single qualified teacher and when the most up to date school in the town comprised no more than two or three large rectangular rooms, this was not so, and criticism was often directed towards other aspects of the system.

"Providence Chapel - this is a mixed school, the principal portion being Infant. Present - 50, under the charge of a mistress and two older children as helpers. The school is quite suitable for a school of this class but not furnished with a view to facilitate instruction among Infants".

"Tabernacle School a mixed school with 25 children under the charge of one mistress. The instruction is carried out in one of the class rooms, nineteen feet long and twelve feet wide and little more than eight feet high to the eaves ..... We cannot report that this has been laid out with a view to the efficient working of a day school. We find excellent rooms in other parts of the premises which are used for Sunday School purposes. There is no playground attached".

Northwood Wesleyan - this is a mixed school of Girls, Boys and Infants carried on as a private adventure school in the chapel, under the charge of a mistress assisted by two or three older children. At the time of our visit there were sixty present. Nearly half of the room is occupied by pews and other arrangements for holding services and the remaining portion we do not consider either adequate or suitable for the purpose of a school".

"Miss Pool's, Market Street - a mixed school held in the upper room of a cottage. There were twenty six children present at the time of our visit. This is a private school under the care of a mistress. The premises are not in any way suitable for an elementary school" [1]

Suitable or not, the inadequacy of the rooms, their deficiency in the furnishing, and the lack of equipment and playground space were not regarded as sufficient grounds for condemning these schools. In fact, all were

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1. Minutes of the Hanley School Board: 15 March, 1871. Reports, by the members of the School Board, on the schools of Hanley in 1871.

to be included in the provisional lists of accommodation drawn up by the School Board for the following meeting [1] and the three chapel rooms were later inspected with a view to establishing new Board Schools in them. Even more surprising, two years later the Wesleyan School room was actually chosen to house the first Board School in the Northwood area and a rental of £25.00 per year was paid for the room - presumably minus pews and other religious paraphernalia.[2] The need to balance the educational books was still paramount, the demand for schooling must be met and this end justified almost any means, including the establishment of double standards for public elementary schools and private adventure schools.

Strangely enough, such tolerance was not extended to the other major source of school accommodation in the town - the dame schools which, in a rare display of unanimity, were condemned from the outset by the members of the Board. The view of the Sub-Committee appointed to visit the schools in the north ward of the borough can be taken as typical.

"The only other schools in the area are Dame Schools and these are unworthy to be taken into account in estimating the existing school accommodation in the borough".[3]

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1. Minutes of the Hanley School Board: 19 April, 1871.
2. Minutes of the Hanley School Board: 20 August, 1871.
3. Minutes of the Hanley School Board: 15 March, 1871.

Condemnation on this scale was by no means unjustified for a dame school in Hanley must have been rather unimpressive to all but the most undiscerning eye. Housed in nothing grander than a room in a terraced house - a room which was identical to a thousand other rooms in the town; run by unqualified teachers who were usually housewives making a little money; and lacking the equipment for even a rudimentary education, they had little to recommend them. And, if one of the rare remaining descriptions of such a school in the Potteries is to be believed, the curriculum offered could be idiosyncratic to say the least.

"I went to old Betty W's school, and so I had 'finished my education' when I was seven years old, I must have attended her school between three and four years. The school was the only room on the ground floor of her little cottage. It was about four yards square with a winding, narrow staircase leading to the one bedroom above. The furniture was very scanty, consisting of a small table, two chairs and two or three little forms about eight inches high for the children to sit on ..... The course of education given by the old lady was very simple and was graded with almost scientific precision. There was an alphabet, with rude pictures, for beginners. There must have been something vivid about these letters ..... for to this day I see them as I first saw them in old Betty's school..... I have the impression too that the distinctness of that old alphabet had something to do with the success of old Betty's teachings, for though she never taught writing, her scholars were generally noted

for their ability to read while very young.

Betty's next grade, after the alphabet, was the reading -made-easy book, with black letters, making words of two, three and four letters.

The next stage was spelling, and reading of the Bible. For those successful in these higher stages old Betty had peculiar honours. They were allowed to take the ashes from under the fire-grate to the ash-heap outside the house ...Another honour of old Betty's was to allow a successful scholar to sit on the highest visible stair in the winding staircase leading to the bedroom ..... There was yet another distinction the old lady had to bestow. She taught both boys and girls who were successful in reading how to knit stockings ..... They thus learnt reading and knitting, instead of reading and writing." [1]

Charming and eccentric and recalled with obvious affection by the author after the passing of some sixty years, but could there really be a place for such schools in the brave new world of education promised by the Act of1870? The members of the Hanley School Board thought not and they obviously felt that, when more efficient schools were on offer, the dame schools would quickly and quietly pass into extinction. Such an assessment, however, proved to be wildly optimistic, underestimating, as it did, the depth of loyalty felt by many working class people towards those of their own kind who had offered a service which was obviously highly valued. In his report Robert Baker, Her Majesty's Inspector of Factories,

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1. Shaw, C., When I was a Child, Methuen. London. 1903. Chapter 1.

displayed much greater perception when, in describing schooling in Longton in 1864, he wrote:

"Any person, however, incompetent, who has opened a 'cottage school', is blindly trusted by the parents with the all important first few years of a childs life". [1] So deep was this trust that the dame schools remained a problem for the School Board throughout the first decade of its existence, in spite of many serious attempts to get rid of them.

The initial estimate of the Census Sub-Committee was that there were about two hundred children attending dame schools and private adventure schools in Hanley. [2] A month later this figure had risen to about four hundred, although a footnote suggests that this represented five percent of the estimated potential school population rather than an accurate measure. [3] Significantly, however, this assessment was retained after the results of the census were known and it can be safely assumed that it was regarded as a reasonable representation of the scale of the problem. It was certainly a problem which did not rank high among the priorities of the School Board and its members, deluded by the obvious inadequacy of such schools and pre-occupied with more pressing matters, allowed nearly two years to pass before they again seriously considered the question of

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1. Report of the Inspector of Factories: October, 1864 1864 3473 xx 429. p523.
2. Minutes of the Hanley School Board: 19 April, 1871.
3. Ibid: 17 May, 1871.

the dame schools in the town. Then, during a long debate about the problem of enforcing the compulsory clauses, particularly among those children who attended schools other than public elementary schools, it was decided to establish a sub-committee to inspect the dame schools in Hanley and to determine the number of children attending them. [1] The report of this committee was presented at the next full meeting of the board and it was acted upon:

"Resolved: Children of six years and upwards found in dame schools not suitable as to instruction and accommodation have notice to attend Public Elementary Schools". [2] And, to support this resolution, no fewer than ten dame schools - most of them in the poorer working class districts of the town - were condemned as unsuitable. Such precipitious action may be taken as an indication of the strength and consistency of the feelings of the board members towards the dame schools but this interpretation must be tempered by the fact that the Hanley School Board was never renowned for caution in its resolutions. For example, only three months later, when confronting "the problem of the lateness of two married mistresses" the Board resolved that "in future no married mistresses be engaged under the Board and that when those at present under the Board get married they be requested to resign". [3]

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1. Minutes of the Hanley School Board: 21 May, 1873.
2. Ibid: 18 June, 1873.
3. Ibid: 17 September, 1873.

The impetuosity displayed in drafting such resolutions, however, was rarely matched by either the resources or the determination required to see them through and the decisions of 18 June, 1873, marked the beginning of a campaign rather than the end of the dame schools in Hanley.

Inconsistency was apparent at the very next meeting when five objections to the June resolutions were considered. In only three instances were the minutes upheld - the other two proprietors were allowed to continue running schools in their houses, although with the numbers reduced, according to the size of the rooms available. [1] As a result of this policy - or lack of policy - the problem of the dame schools persisted, to such an extent that at the end of 1874 a joint approach was made, with the Hull School Board, to the department concerning its continuation. [2] Little appears to have come of this initiative and some four months later the following item occurs in the minutes:

"Information has been received that several new dame schools have opened in the borough. Resolved that the clerk (to the Board) should draw up a list of questions for head teachers of dame schools to answer". [3]

The questionnaire obviously indicated that the problem had not abated for at the end of the year it was recorded that "no action to be taken yet on dame schools which are overcrowded

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1. Minutes of the Hanley School Board: 16 July, 1873.
2. Ibid: 16 December, 1874.
3. Ibid: 15 April, 1875.

and inefficient", and it was resolved to await government action on the subject - action which was thought to be imminent.[1] This was the final admission of failure by the Hanley School Board although it did not prevent further resolutions being passed to condemn such schools and to remove them from the list of establishments suitable for the education of those children who came directly under the jurisdiction of the board, namely those between the ages of five and twelve.[2] And as a failure it was complete for, of six schools listed in this minute as being "inefficient and not elementary schools", no fewer than four had appeared on the first list drawn up in the spring of 1873.

If nothing else, the struggle with the dame schools indicates the problems which emerged once a qualitative assessment was introduced into the education system. For it is obvious that, while the School Board unanimously condemned such schools, a not insignificant proportion of the population valued them and were prepared to fight for them.[3] It might be assumed that this apparent loyalty was based simply on price and that the dame schools were attractive because they were cheap. But such an assumption would be dangerous since, as the proceedings of the School Board itself indicate, the charges at most dame schools were as great as, if not greater than, the fees charged by most public elementary schools

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1. Minutes of the Hanley School Board: 18 November, 1875.
2. Minutes of the Hanley School Board: 16 March, 1876.
3. Appeals against the ruling of the School Board were often accompanied by testamonials from satisfied parents.

in Hanley.[1] There were obviously other factors at work and, whatever those factors were - whether it was the greater convenience of such schools for working mothers or the longer hours of child minding offered by them - the Hanley School Board showed little willingness to understand them. From the outset all dame schools were to be designated 'inefficient' and, if they did not pass out of existence, pressures, including legal pressures, would be brought to bear to ensure that they did. Any failure to achieve this quickly was regrettable but, once successful, the pressure could then be switched onto other undesirable elements in the system which were successively designated as inefficient in comparison with the ever-improving standards of the board schools. In this way first the private adventure schools were forced out of existence, only to be followed by private elementary schools and finally public elementary schools, including some of those established by the National Society. To achieve this an accelerating programme of school building was necessary and ironically it was one which was to be perpetuated by the need to replace schools, including board schools, which fell short of the rising educational standards. In these circumstances any assessment of accommodation need was virtually impossible and it is important to remember that qualitative assessment took place from the outset, with the decision to designate all dame schools as inefficient.

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1. The fees at the public elementary schools ranged from 2d to 4d per week whereas at two 'inefficient' dame schools they were 10/- and 10/6 a quarter, respectively (Minutes of the Hanley School Board: 15 March, 1871).

ENROLMENT

ENROLMENT and the question of compulsion

Viewed from the distance of a hundred years the arguments for compulsion seem unanswerable. The schools, if not "half empty", were certainly far from full. The streets of every town in England and Wales - including Hanley - were thronged with children, many of whom should have been at school. And many industries were heavily dependent upon the cheap labour provided by children under the age of thirteen which, until the decade prior to the passing of the Elementary Education Act, was effectively supervised and controlled only in the textile districts.

The North Staffordshire Potteries did not escape such problems. In fact, in 1860 the district was ranked with South Staffordshire as one of the most backward and under-privileged in the whole of the kingdom. By the time the Hanley School Board had been established the situation had been improved by the extension of factory legislation to several major industries in the area but, in spite of this, the same problems remained and the members of the Board were unlikely to have remained unaware of them. How could they? For, in addition to the evidence of their own eyes, they had been subjected to a mass of evidence and propaganda contained in government reports, the papers of learned societies and the pages of local and national newspapers. It is against this background that the responses of the School Board must be viewed.

The evidence was of course highly emotive and few of the reporters were prepared to play this down. The words of the Rev. James McCosh may be taken as typical.
"The worst portions of our population are herded together in towns .... Certain streets, lanes or districts come to

be possessed by this class and they countenance each other in their degradation; and in the end no others will live in them. Into these sinks the population that becomes degraded pours itself; and there, filth, begging, drunkeness and crime seethe and ferment and emit a malaria worse than fever, plague or pestilence. Out of these dens come the greater number of our paupers, beggars and criminals. Talk of influencing such places by public opinion! In truth there is a public opinion even here but it is certainly not in favour of education".[1]

Of this "sunken population",[2] it was the children who gave the greatest cause for concern and who occupied the time of legislator and public servant alike. In the Potteries this population was estimated in thousands forming "a truly Arab tribe, formidable even in its infant state but becoming more formidable as life advances".[3] Most of these children - the street Arabs or gutter children, as they were called - were regarded as living beyond any educational pale, isolated from the influence of normal society and free from the constraints of the law. Such children could be found in every industrial city in Britain but there is evidence that the situation in the Staffordshire Potteries was particularly bad.

The pottery industry itself, because it was fragmented and, because the individual factories were small, encouraged

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1. McCosh, Rev. James, "On Compulsory Education." Transactions of the National Association for the Promotion of the Social Sciences. Belfast. 1867. p382.
2. Ibid p381.
3. Reports of Her Majesty's Inspectors of Factories. 31, October, 1864. 1865 [3473] xx. 429. p104.

strong family links with individual masters so that "as the fathers die off, the sons fill their places and keep up the reputation which they have vacated".[1] Furthermore in many families every opportunity was taken to exploit this situation so as to gain employment for sons and daughters at a very early age. Not that a great deal of exploitation or persuasion was needed since few masters were averse to employing children at any age. As a result, North Staffordshire achieved an unenviable position among the manufacturing districts of Britain in terms of the extent of child labour and the degree of its exploitation. This can be deduced from the following figures quoted by Her Majesty's Inspector of Factories, Robert Baker which, he claimed, "were not of his own collection"[2] and which were, in fact, probably based on the census of 1861.

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1. Reports of the Inspectors of Factories. 31 October, 1864.
   1865 [3473] xx. 429. p103.
2. Ibid 31 October, 1864.
   1865 [3473] xx. 429. p61.

EMPLOYMENT IN THE STAFFORDSHIRE POTTERY INDUSTRY 1861 (BY AGE)

	5-10	11-15	16-20	21-25	26-35	36-45	46-55	56-65	66-75	76-85	OVER 85	TOTAL EMPLOYED IN POTTERY INDUSTRY
MALE	434	2758	2921	2562	3605	2614	1495	731	194	37	5	17,356
FEMALE	159	1847	2639	1922	1705	944	532	231	79	14	0	10,072
TOTAL	593	4605	5560	4484	5310	3558	2027	962	273	51	5	27,428
% OF TOTAL EMPLOYED	2.16	16.78	20.27	16.34	19.35	12.97	7.39	3.50	1.00	0.18	0.01	100%

The importance of the child labour force is obvious and, if size can be taken as an indication of the strength of feeling about the subject among masters and parents alike, then it is obvious that any attempt at reform would meet with stern opposition.

At the same time, however, the nature of their employment was such that no reformer need ever lack evidence to support his argument. In Hanley for example out of a labour force of 4248 no fewer than 879 were designated as children (i.e. under the age of 13)[1] and, of these, the vast majority were employed in manufacturing processes which were damaging to their health and under conditions which served only to increase these risks.

"The children, although working all day in variable temperatures and for long hours, are not without energy... but their faces are pale and sallow and their figures display none of the rounded curves by which happy and cared for childhood is distinguished. They more resemble than any other that I have seen, the children of widows in destitute

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1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. p63.
The actual figures for employment in Hanley were:

	M	F	T
Adults employed in pottery industry	2929	1308	4248
Young persons (13-18)	921	601	1523
Children	548	331	879

bread and herrings".[1]

The ultimate accolade given by a man who prided himself on his experience as an Inspector of Factories in so many of the manufacturing districts of England. Whether or not the pottery industry warranted so exalted a position might be open to doubt; what is certain is that children who were employed as mould runners,[2] wedgers[3] and machine drivers[4] - as the majority were - were exposed to great humidity, extremes of temperature and high levels of dust. As a result, according to Dr. Arlidge[5] of Newcastle-under-Lyme, who was later to become a leader in the fight for the recognition of industrial disease, the mortality rate for the Potteries "exceeds that for the whole of England, especially among infants".

Dr. Arlidge also highlighted another related problem. An industry which offered such opportunities for child labour also employed a large number of women, many of them the mothers of young children. The result of this was, according to many observers, the neglect of children on a scale seen in few other areas of the kingdom.

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1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. p63.
2. Mould runners carried ware (in soft state) from the maker to the drying room.
3. Wedgers throw large lumps of clay onto a flat surface to expel air.
4. Many machines in the pottery industry were small and were driven by children or women.
5. Evidence given to the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 65.

"A comfortable well furnished home is scarcely ever to be found amongst this class. The furniture above and below the stairs is generally of the poorest possible level. The women, from going to work, have but few opportunities afforded them of becoming acquainted with home duties before they marry; and, in consequence, their homes are deserted by the men for the public house. In those parts of England with which I am familiar, I have never met with girls and women who knew so little of the common use of the needle as in Longton (one of the towns of the North Staffordshire Potteries). Hence the rags which disgrace the children and the great waste of money which is caused by the want of a few stitches in time.... The same waste and extravagance goes on with the food.... A full stomach during the early part of the week and an empty one at the end of it, is a very common rule".[1]

If such were the consequences of the employment of women in general; the consequences of employing young mothers were predictably much more dire. As a result, young children were known to be "completely neglected or left for hours in charge of a sister who should be at school herself, and who, so far from being competent to take charge of another is hardly fit to be trusted herself".[2] Equally serious, if self-help was not available, children were left with child minders who were no better qualified and some of whom

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1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 95.
2. Report of the committee of Council on Education: 1869-70. 1870 [C165] xxii. i. page 266.

were known to make use of drugs such as laudanum to maintain peace among their charges.

This lack of maternal care was, moreover, symptomatic of a general parental indifference upon which any attempted reform seemed doomed to founder. And no-where was this apathy to be more clearly seen than in attitude towards schooling and in the early removal of so many children to work.

"The children of ordinary workmen are often sent to work at eight years of age and in my school more than one case has occured within the last four years where boys of seven years old have been sent out. In many cases they work with their own parents. Boys frequently return to school because they are not tall enough or strong enough to do the work ..... Sometimes poverty causes parents to send their children this early to work; but it is frequently done when both father and mother are at work also". [1] Such behaviour should not have been unexpected since the majority of parents had themselves received little or no education and could, with some justification, reply, when accused of not sending their children to school, "his father does very well without learning, and why should not he?" [2] Why indeed? For at a time of full employment in the area and a heavy demand for labour the economic

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1. Report of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 103. Evidence given by a school master to Robert Baker, Factory Inspector.
2. Report of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 103.

arguments against sending a child to school must have been very strong and to go against them would have required a degree of altruism given to few men. These arguments, albeit produced to further a different cause, were expressed most succinctly by an irate ratepayer in a letter to a local newspaper in which he pleads for the minimisation of any future school rate.

"..... say a boy commences work to work at eight shillings a week and works forty weeks out of fifty two in the year, he would earn for his parents sixteen pounds a year which in three years would amount to forty eight pounds, whereas, if the boy had been under a sluggish or superficial teacher, they would not only have lost the forty eight pounds but would have had to pay school fees for three years". [1]
The weekly wage might be a trifle optimistic [2] but the argument was sound and it had great appeal to the majority of working class parents in the Hanley of the 1860's; as did the implied criticism of the quality of teaching likely to be experienced in a local elementary school. Any inadequacy in this field was seized upon and used to justify any failure to send children to school - even in the most unexpected quarters.

"One old collier told me that his lad knew exactly how far it was from London to Constantinople, but he did not know how far it was to the next village. If schoolmasters

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1. Letter from an Audley rate payer. Staffordshire Weekly Times. 31 December, 1870.
2. Figures produced by the Inspector of Factories in 1866 indicate that wages for children in the pottery industry ranged from 4/- to 6/- a week. (Report of the Inspectors of Factories 31 October, 1866). 1865 3473 xx. 429. page 409.

would confine their teachings to plain reading and writing, the objection that now exists to night schools or evening schools would soon disappear". [1]

A perennial argument which steadfastly refuses to go away and which must strike chords in a modern educational world dominated by concepts of relevance and core curricula.

The result was that, in the words of Robert Baker, "ninety percent of children brought up in such conditions never attend school and they will not improve". [2] Such a low level of schooling inevitably had an adverse effect on the levels of basic literacy and numeracy achieved in the district. For example in a survey of applicants for jobs, carried out by inspecting surgeons between September 1st and December 31st, 1866, the following picture emerged. [3]

Children inspected by Dr. Arlidge of Newcastle	1000	Comprising 624 boys and 376 girls
Able to read and write from dictation.	15%	
Know letters but unable to write.	18%	
Able to copy simple words.	24%	
Some knowledge of arithmetic.	24%	
Unable to do any of the above.	42%	

1. Report of the Inspector of the Mines for North Staffordshire. 30 April, 1862. 1862 3029 xxii. 369.

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Comparable figures for other districts indicated that the proportion of applicants unable to read was only 33% in nearby Macclesfield, 32% in Bristol and no more than 23% in Bury, a town in the heart of the Lancashire textile district. Having suggested that such variations could be due to the nature of parential employment, regional inequalities in school provision or the incalculable influence of individual ministers and their Sunday Schools, Her Majesty's Inspector came to a typically trenchant set of conclusions. First, that the general ignorance was deplorable but that it was a national as well as a local disgrace. Second, that attendance at Sunday School as a means of secular education was comparatively useless. Third, that a degree of compulsion was necessary if the situation was to be remedied. And fourth, and somewhat predictably, that this could best be achieved by an extension of the education clauses already contained in factory legislation. [1]

Not everyone shared this enthusiasm for compulsion and, inspite of the apparently overwhelming nature of the supporting evidence, it was to be two decades before attendance at school was effectively enforced. Why this delay?

(Continued from page 103)

2. Reports of the Inspectors of Factories. 31 October, 1864. 1865 3473 xx. 429. page 95.
3. Reports of the Inspectors of Factories. 31 October, 1866. 1867 3794 xvi. 327. page 117.

1. Ibid. page 116.

Some of the reluctance to legislate can undoubtedly be attributed to a genuine antipathy towards any infringment of personal liberty. By 1860, however, under the impact of an ever increasing body of legislation covering broad areas of life, resistance on such philosophical grounds was slowly but inevitably being undermined. Already proponents of change could point to the acceptance of legislation to control working conditions and sanitary conditions; and, what was perhaps even more telling, they could quote the beneficial effects of compulsion in countries such as Norway, the United States of America and, above all, Prussia where, it was claimed, crime and pauperism had been reduced, drunkenness had decreased and parental respect for both education and the law had steadily grown. [1] No ploy could have been better guaranteed to raise the blood of any true Englishman of the 1860's and such comparisions understandably contributed to a breakdown of resistance to change. So much so that towards the end of the decade the Rev. James M^{c}Cosh could claim that "public opinion is said to be against it (compulsion) - but, what is public opinion? Thinking opinion is for it and increasingly so." [2]

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1. Sandford, Rev. Henry, "Is it expectant to make primary education compulsory and if so under what conditions?" Transactions of the National Association for the Promotion of the Social Science. Manchester, 1868.
2. McCosh, Rev. James, "On Compulsory Education." Transactions of the National Association for the Promotion of the Social Sciences. Belfast, 1867.

If it was, thinking opinion had remarkably little effect and the movement towards compulsion continued to founder on a number of highly specific and highly pragmatic points - a far cry from the general philosophical issues which had dominated earlier argument. And, among these points, it was - almost inevitably - the issue of religious instruction which dominated discussion among the denizens of 'thinking opinion'. The question was quite simple. If compulsion was introduced how could a form of religious instruction be found to satisfy the needs of parents forced to send their children to schools run by a denomination different from their own. Only two solutions seemed possible. One, that a variety of schools should be provided so that every shade of religious opinion could be catered for - a development which was hardly likely at a time when, in many areas, including Hanley, population growth had completely outstripped the overall provision of school places. The second, that education should be secularised and that a new agency should be established to provide school places - an agency free of denominational bias, an agency acceptable to all. In short, an agency like the proposed school boards, the establishment of which triggered off a controversy which served to show the extent and depth of denominational feeling in the country.

For the legislators and those likely to be involved in the application of any compulsory clauses another more practical issue raised its head - could such clauses be enforced? Opinion was divided on this point. Some, like the Bishop of Manchester [1] felt that in the areas where

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1. See page 8.

compulsion was most needed i.e. in the slums and ghettos of the growing industrial cities, the inhabitants were so far beyond the reach of any law that enforcement would prove impossible and that the statute book, encumbered by yet another impracticable act, would be brought into further disrepute. Others were less pessimistic and, while few were prepared to accept enforcement by the police an increasing number appeared to share the views of G. Melly M.P. (Stoke-upon-Trent) that "beadles, officers of the corporation or even NCO's of the army could be appointed.... who will provide a list of pupils not attending and bring them before the magistrates as a last resort". [1] Whether such views reflected the opinion of the majority, however, was open to question and, at the end of the decade, less than one year before the passing of the Elementary Education Act, Sir John Pakington is reported as saying that he could not believe "that a proper degree of education can be obtained without some degree of compulsion. But the government must carry public opinion with it and the public mind is not yet prepared for direct compulsion". [2] Such fears were undoubtedly justified and it is significant that the establishment of school boards and the subsequent incorporation into the bye-laws of compulsory clauses often failed to have the desired effect, particularly in industrial towns such as Hanley.

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1. G. Melly M.P. - speech reported in the Staffordshire Sentinel. 12 November, 1870.
2. Sir John Pakington: Address to the National Association for the Promotion of the Social Sciences 18, January, 1870.

To the more perceptive observers this failure to establish an effective system of compulsory education at either a national or a local level came as no surprise for it was obvious that the imposition of compulsory clauses in isolation would produce a situation verging on the schizophrenic. The dilemma was obvious. If a parent was expected to pay for the education of his children, could that parent be compelled to send his children to school? Many thought that he could not be so coerced and the campaign for compulsion in education was accompanied by a growing movement for free education. Not unnaturally the teachers who would be faced with the almost impossible task of collecting fees from reluctant parents were in the van of the movement. The teachers of North Staffordshire were not untypical and on Saturday, 5th March, 1870 a meeting of the Association of Certificated Teachers recommended to Parliament that compulsion should be direct not permissive and that education should be free. [1] Such sentiments certainly gained the support of an influential body of opinion for whom local Member of Parliament, George Melly was a leading spokesman. And in a letter to the Times he stated their case forcefully:

"The compulsion must be direct by summons and, if necessary, by fine of neglectful parents. If there is compulsion the schools must be free for a parent cannot be forced to send his children to a paying school if he cannot afford it ..... The free school must be unsectarian for it is impossible to tax any single ratepayer for the

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1. Staffordshire Sentinel 12 March, 1870.

teaching of what he believes to be a religious error".[1] But this support was undoubtedly overwhelmed by an opposition drawn from a broad spectrum of opinion both inside Parliament and in the country as a whole. This opposition - so representative of its day - found it impossible to accept the idea that education should be free, that school fees should be abolished! It was the antithesis of the Victorian ideal of self-help - an ideal so admirably summed up by one of Her Majesty's Inspectors of Schools in a plea for an immediate increase in school fees.

"The raising of school fees will .... increase the income of the schools .... Raise the price of a valuable commodity - education - which is far below its market value .... Raise the value of education in the eyes of the parents .... Improve the irregularity of attendance, for if parents have paid more each absence will mean a greater loss".[2] Since he was convinced that the majority of parents could afford such fees he was "not without hope that, as the community gradually became more educated the value of education will rise and children will be sent more regularly to school".[3] And, if they could not afford ....? This was the dilemma faced by the candidates for election to the Hanley School Board and, like the majority of candidates for the majority of School Boards, all except the workingman's candidate, William Wood, adopted a Janus-like stance, claiming that the compulsory clauses were the nub of the act yet promising to keep the remission of fees to a minimum.

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1. Times 8 January, 1870.
2. Reports of Her Majesty's Inspectors of Schools. 1864. Mr J. R. Byrnes' Report 1865 [3533] xlii. page 36.
3. Ibid.

Small wonder that compulsion - so easily espoused - proved so difficult to enforce. The odds against success must have appeared enormous and it would have required the wisdom of Solomon or the sword of Alexander to have disentangled the complexities of personal freedom versus public good; of school fees versus free education; and of enforcable versus unenforcable laws which surrounded the central issue of direct compulsion. And small wonder that in the face of such complexities, an alternative was eagerly accepted.

Yes, an alternative was available in the form of the ever increasing collection of factory legislation - an alternative which, with its inevitable hint of compromise, was to prove much more attractive than "the direct compulsion of the magistrates courts".[1] From the outset attempts had been made to incorporate educational clauses into factory legislation. Sir Robert Peel's Act of 1802 stated that "every apprentice shall be instructed for some part of every working day in reading, writing or arithmetic by some person provided and paid by the master or mistress of such apprentices".[2] The fact that this act was almost a total failure is not significant; it pointed the way to future legislation which was to achieve a considerable degree of success. Succeeding acts concentrated on the reduction in the hours of work of children and women employed in the cotton industry.

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1. Staffordshire Sentinel 29 October, 1871. Report of a speech made by G. Melley M.P.
2. Act for the Preservation of Health and Morals of Apprentices and others employed in cotton and other mills 1801-2 (60) (85) 1. 225. 369.

The Factory Act of 1833,[1] however, having reduced the hours of work for children in the textile industry to forty eight hours per week, contains the following clauses:

"Section 20 - " .... every child restricted to the performance of forty eight hours of labour in one week shall, as long as the child be within the said restricted age (9-14), attend some school, to be chosen by the parents or guardians of such children, or by an inspector, in case the parent or guardian should omit".

"Section 21 - " .... it shall not be lawful to employ in any factory or mill any child restricted by this Act to the performance of forty eight hours labour in any week, unless such a child shall on Monday in every week .... give to the factory master or proprietor or to his agent a school master's ticket or voucher, certifying that such a child has for two hours at least for six out of seven days of the week preceeding attended his school".

Here, in embryonic form, was the concept of half-time education - a concept which, within the space of little more than ten years, was to be developed into a form which was to persist with little change until the last decade of the century. Two abortive bills, put before parliament in 1838 and 1839, contained clauses which were to be incorporated into the Bill for Regulating the Employment of Children, Young Persons and Women in Factories [2] which was introduced early in the 1844 session and became law on the 1st October that year.

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1. Bill to Regulate the Labour of Children in Mills and Factories 1833 (48) (607) ii. 263. 281.
2. 1844 (ii) 149.

The main provisions of this act were to reduce the minimum age for employment from nine to eight and to follow this retrograde step with a series of clauses which, in the opinion of Robert Baker, were to ensure that employment and education were inextricably linked; that the labour of the child rather than the parent paid for any education provided; that payment should be related to means; and that parents were given the right to select the school which most nearly reflected their religious beliefs.[1] Certainly severe restrictions were imposed on the hours of employment of children between the age of eight and thirteen, and employers were forced to allow three hours' schooling each day, prior to or following six and a half hours' at work. Proof of attendance was required in the form of a certificate signed by the school master and any school fees up to a level of 2d per week could be deducted from the child's wages. The application of this act gave a unified code of practice but one which applied only to the cotton, woollen, worsted, silk and linen industries.

The attractions of such a system are obvious. A degree of compulsion could be obtained without direct recourse to the law; the onus for attending could be placed where it obviously belonged - on the parents; and the penalties, being financial, were very direct and easy to impose. Small wonder then that there was great enthusiasm for the

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1. Reports of Her Majesty's Inspectors of Factories. 31 October, 1866. 1867 [3794] xvi. 327. page 412.

extension of factory legislation to other industries and other areas. Unfortunately this early promise was not immediately fulfilled and the results of succeeding legislation fell far short of the visions of Utopia granted by the first factory acts, largely because attempts were made to cater for the problems, both real and alleged, of individual industries. The 1845 Act to Regulate the Labour of Children in Calico Printworks,[1] for example, accepted that employment in the industry was seasonal and the education clauses were modified accordingly. Clauses which allowed exclusion from education during certain periods of the year opened the way to widespread abuse, and further legislation the following year could not prevent children attending school continuously for six weeks and then being employed full time for the rest of the year.

Similar abuses greeted the first attempts to legislate for employment in mines and collieries - the first legislation to apply to any industry in the Potteries district of North Staffordshire. The intial attempt in 1842,[2] intended primarily to prohibit the employment of girls and women underground and to reduce the employment of young boys in the industry, had little effect on the education of the children. So much so that as late as 1858 one of the most influential government commissioners, H. S. Tremenheere could say: "Are the mass of boys destined to colliery labour now receiving that instruction, and are they subjected to that amount of mental and moral training, which affords a

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1. Bill to Regulate the Labour of Children in Calico Print Works. 1845 (116) (229) i. 227. 235.
2. Bill to prohibit the Employment of Women & Girls in Mines & Colleries 1842 (298) (356) iii. 275. 283.

reasonable expectation that they will form, when they grow up, a more enlightened class than those who have gone before them? I regret to say that they are not .... and that when they go down the pits .... they may be said to have learnt scarcely anything to any good purpose. If any real improvement in the intelligence of the colliery population is to be looked for within any reasonable time, recourse must be had to legislation".[1] That legislation came the following year with the Bill for the Regulation and Inspection of Mines[2] which sought to end the employment of children under the age of ten and to ensure that employees between the ages of ten and twelve attended school for at least three hours a day on two days a week - a certificate of attendance being required each month. In North Staffordshire immediate doubts were expressed about the working of the act. Such doubts were to be expected and by 1863 the Inspector reported that "the educational clauses seem to me to be working better now that all parties are becoming more acquainted with their tenor".[3] Two years later, however, this optimism had disappeared and his final assessment, shared by many others in the district, was that "in nearly every case the employers dismissed all boys under twelve years of age rather than be troubled with the certificate of attendance at school and with the irregular hours of attendance at work which the schooling produced ....

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1. Report of the Commissioners Appointed to Inquire into conditions in the Mining Districts 1859 [2566 52552] xii. 449. page 465.
2. 1860 (40) iv. 745.
3. Reports of the Inspectors of Mines, 1863. Mr Wynne's Report. 1864 [3389] xxiv. i. page 65.

In a large part of my district the butty or chartermaster system prevails and this places the proprietors in a serious dilemma, they being liable for any breaches of the law, although they neither engage nor pay the boys, hence the broad principle is laid down that no boy under twelve shall be employed." [1]

This apparently desirable outcome was not welcomed by the inspector because he knew that the loss of employment in the mines would not necessarily lead to a increase in schooling as long as the other industries of the district lay outside the law and could offer alternative employment. It is not surprising therefore, that the apparent failure of the educational clauses of the act - a failure exacerbated by the small number of inspectors and their necessary preoccupation with safety in a notoriously dangerous industry - led to an increasing agitation for an extension of Factory Legislation to all industries or that the agitation, among the inspectors in particular, should be for a strong unified set of laws based on those which had been so successful in the textile districts, where in Lancashire alone, the number of children in schools had risen from 4,958 in 1836 to 84,841 in 1867 and where 26,438 of these pupils were half-timers, forced into the schools by successive factory acts. [2] Nor is it remarkable that, in the face of such overwhelming evidence, many people were prepared to accept that the indirect compulsion of the factory acts offered "a method by

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1. Reports of Her Majesty's Inspectors of Mines. 1865. Mr Wynne's Report. 1865 [3557] xx.
2. Reports of the Inspectors of Factories. 30 April, 1869. 1870 [4093 II] xiv. 465. pp500 and 541.

which in a free country a grand and universal system of national education may be carried out without offence to religious differences and without undue interference with the liberty of the subject." [1] In short, it offered the perfect compromise which achieved the same ends as direct compulsion with none of its difficulties, either philosophical or practical, and little of its unpleasantness. All that was required was the extension of factory legislation to every industry in the country, including agriculture. Inevitably there were problems in such a system, not the least of which were the reservations expressed about the efficiency of a half time education and in particular of a half time education which would often follow long periods of exhausting manual labour. But, reassured by the intellectual support of men of the calibre of the Rev. W. I. Molesworth who claimed that half time education was ideal since "Few teachers can sustain interest for more than three hours .... furthermore, it is a well known physiological law that over-exention in childhood produces permanent bad results; that physical over-exertion produces chronic bodily prostration, and that mental overwork is followed by permanent intellectual debility. There is probably no one who cannot point to one or more individuals who have suffered through life from having overwrought their brains at school or college",[2] and secure in the knowledge that

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1. Reports of the Inspectors of Factories. 31 October, 1865. 1866 [3622] xxiv. 251. page 356.
2. Molesworth, Rev. W. I., 'The Half Time System.' Transactions of the National Association for the Promotion of the Social Sciences. Manchester. 1866.

half an education is better than no education (which is what most of the children in question were receiving or were likely to receive), the campaign for indirect compulsion went from strength to strength.

The educational argument contributed greatly to the growing campaign for further control over working conditions and during the 1860's the extension of Factory Legislation proceeded apace. Coverage of the textile industry was made virtually complete by the incorporation of the bleaching and dyeing industries in 1860 and of the lace making industry in 1861. [1] Then it was the turn of the pottery industry. In a massive extension of the Factory Acts to include the earthenware industry; the manufacturers of lucifer matches, percussion caps and cartridges; paper staining and fustian cutting , the industrial and educational life of the North Staffordshire Potteries was transformed. [2] Agitation for the regulation of labour in the pottery industry had been growing for more than two decades. The Report of the Royal Commission on Children's Employment in 1842 highlighted the abuses which existed in the industry and twenty years later there was little evidence of improvement. The employment of children was still widespread with 18% of the workforce under the age of fifteen and 2% under the age of ten. And, according to Robert Baker, the employment of very young children had not ceased:

"..... I have seen children of five years old at work

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1. Bleaching and Dyeing Works Bill 1860 (32) 1637 and the Bill to place the employment of women, young persons and children in Lace Factories under the regulations of the Factory Acts 1861 iii. 39.
2. Factory Acts Extension Act 1864. 1864 (55) ii. 81. Bill for the Extension of the Factory Acts.

once in the textile districts and now again very recently in the potteries and in the brickfields ..... My experience bears out the statements of master potters to Her Majesty's Government:

1. That children are employed in the potteries at a very early age and in a way to interfere injuriously with their education.
2. That this state of things is the cause of various moral and physical evils to the youthful population of the district."[1]

Surrender to such pressures was not immediate, however, and when Robert Baker took up temporary residence in the district to supervise the introduction of the new act he "met every old argument about such an act not being suitable for the trade ..... of there not being children enough in the district for two shifts ..... of the difficulty of schooling those that would be employed on account of their dresses ..... and of the loss of wages by full time workers reduced to half time."[2]

Such worn out arguments, first heard in the textile districts more than three decades earlier were unlikely to influence either parliament or Her Majesty's Inspectors of Factories, particularly when they emerged from an unworthy alliance of parent and master potter, each blatantly motivated by little more than self interest.

Legislation when it did come[3] was of the harshest kind,

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1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429.
2. Ibid.
3. The Factory Acts Extension Act received the royal assent on 26 July, 1864.

namely an extension of the full Factory Acts with little or no modification to cater for the special requirements of the industry. The employment of children under the age of eight was expressly forbidden and any child under the age of thirteen must attend school for at least three hours daily, certificates of attendance being required at the end of each week. The parent or guardian was given the right to choose the school but the school fees were to be deducted from the child's wages. The hours and periods of work were also strictly controlled so that it was impossible to make up the time spent in school. In one respect only was the impact of the legislation reduced. The age at which full time employment could commence was increased in stages from eleven when the act was introduced to thirteen on 1 January 1867 by which date the Factory Acts would apply in their entirety.

Reaction to the Act was immediate and often obvious. Among the masters a minority, having themselves once been potters, welcomed legislation, appreciating the improvement in the labour force which education could bring. At the other extreme, some resented both the expense which would be incurred and "the additional trouble which would be imposed upon them in the form of organising two shifts where one once sufficed and of completing the returns which were a necessary part of the administration of this Act." For this group the easy way out was to dismiss all employees who came under the jurisdiction of the Act and, as when legislation was first introduced into the textile and coal mining industries, such a development led either to a movement into other trades not covered by the Act or served to

swell the number of children on the streets rather than to increase the school population. Such repercussions were, however, less severe than might have been expected. The pottery industry was still in the depths of the depression caused by the loss of its American markets during the Civil War [1] and demand for labour was low with the result that many children had already failed to find employment in the industry. In short, it was an ideal time for the introduction of legislation to regulate the industry without generating the full scale opposition of the employers. Under such circumstances, therefore, it is not surprising that the majority of masters, including those who "were indifferent to the law and the principles of education preferred to wait and see what their neighbours did and what might be the possible consequences of doing nothing". [2] By the time trade recovered the Act had been in force for almost a year and, under the boom conditions which followed the end of the Civil War, employers were prepared to operate a two shift system in the industry regardless of serious practical difficulties and this made the transition to a half time system smoother than it might have been.

If circumstances allowed employers to accept legislation with a considerable degree of equanimity, they produced very different reactions among parents. The depressed state of

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1. The resistance of the Confederate army did not cease until May 1865.
2. Reports of the Inspector of Factories, 31 October, 1864. 1865 [3557] xx. 573. page 102.

trade had already meant a lowering of living standards in the district which in turn increased the value of any wages which could be earned by children. The Factory inspectors anticipated - and found - many problems.

"When the original Factory Act was passed, it was not to protect children against the cupidity of employers only, but of parents also; and even yet it is a fertile source of complaint that some of the latter still use every means in their power to deceive the inspecting surgeon as to the age of their children in order to have them passed for full time work, to the detriment of their school attendance". [1]

Such a response was not really surprising for it was the parents who were expected to make the greatest financial sacrifice in a system which immediately halved the wages which a child might expect to earn. Small wonder then that they tried to buck the system by any means within their power or that the children actively connived at this.

"I have even been informed by a teacher that, in asking for the ages of children, he has frequently received as the immediate answer, "What age do you want, school age or Factory age?" [2]

Everywhere could be seen "a want of inclination and ignorance of the benefits (on the part of parents and children)

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1. Reports of the Inspectors of Factories. 31 October, 1865. 1866 [3751] xxiv. 251. page 90.
2. Report of the Committee of Council on Education. 1871 [C 406] xxii. 1. page 110.

which are the chief causes of failure wherever the half time system has not succeeded. The manufacturer is in the hands of the parent for he cannot employ the children unless they attend school, and the parents who ought to keep their children at school regularly are too frequently the first to retain them at home". [1]

In the face of such apathy and indifference how could any system work? The inspector for the North Staffordshire district, Mr May, held out some hope for the future. "Amongst those who were once factory scholars themselves the education of their children in turn appears to be highly appreciated. Amongst those who are yet unaccustomed to its discipline, it is incomprehensible, for the best of all possible reasons, namely that ignorance appears to cost them nothing". [2]

This could have comprised only a small minority of parents in Hanley at that time but at least there was a base upon which to build. In fact, such guarded optimism was justified for within the space of less than one year the inspectors reported an increase in the number of half timers from 1,063 in 1864 to 1,625 in 1865. [3]

Whether or not this influx measured up to the expectations of the third group of people who had cause to be interested in the introduction of the half time system - namely the teachers - is difficult to ascertain. What is certain is that the prospect of change caused a polarisation of

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1. Reports of the Inspectors of Factories. 31 October, 1865. 1866 [3751] xxiv. 251. page 32.
2. Ibid page 106.
3. Ibid page 113.

opinion among them as marked as that seen among parents, children and employers. For a small number of school teachers the act promised to be in the words of William Molloy, the Roman Catholic priest in Hanley, "a Godsend", [1] bringing with it the possibility of more pupils and greater financial stability to their ailing academic institutions. If the school of St Mary and St Patrick fell into this category so did the New Connexion school of Bethesda which had waged a long and not very successful war against financial adversity. In such circumstances it is not surprising that both the master and the managers welcomed the act or that, when a master potter directed a large number of half timers to move to another school "attached to the place of worship he upholds", [2] strenuous representations were made to have them returned to the fold. The majority of teachers viewed the application of the Act with apprehension, however, anticipating many problems.

In this they were justified. There were problems of behaviour, with lateness, swearing and fighting all warranting frequent entries in the log books; and there were serious problems of cleanliness among children attending school immediately after several hours work at a pot bank. But most of their major fears seem to have been groundless. The behaviour of the half-timers did not drive away day pupils, although in some case it was a close run thing.

"Swearing and fighting a problem .... many day scholars

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1. Staffordshire Sentinel. 17 December, 1870.
2. Log Book of the Bethesda Boys School. 6 April, 1866.

left when the half timers arrived but they have almost all returned". [1]

Moral standards did not plummet as a result of the introduction into single sex schools of a large number of pupils accustomed to working in factories where the mixing of the sexes was carried to such extremes that even the factory inspectors - the most vocal advocates of the half time system - expressed concern about the moral well being of the children employed in them.

As far as educational standards were concerned, the evidence is less certain. If the worst fears of the school teachers were not borne out neither was the optimism of the inspectors who claimed that if the half-time pupil had attended school before starting work his progress would approach that of the day pupils and that if he had not his progress would be better than expected simply because the average age of half timers was greater. [2] In fact the influx of totally ignorant children or of children with

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1. Reports of the Inspectors of Factories. 31 October, 1865. 1866 [3751] xxiv. 251. page 113.
   Quoting report from the master at Bethesda Boys School.
2. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3557] xx. 573. page 104.

a minimal education was so great [1] that the observations of Rev. G. A.Page, a Wesleyan minister in Turnstall, were probably nearer to the truth.

"Some (half-timers), although eight to twelve years of age do not know the letters of the alphabet and in other respects display a total absence of mental perception so that the simplest questions elicit only a vacant stare .... These children only attend when forced to and if they miss a day's work they miss a day's school because they have not been to work and are, therefore, not required to go to school". [2]

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1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3557] xx. 573. page 116.
Report on the educational attainment of half timers in Hanley.

	In the Potteries as a whole	In Hanley
Number of Boys	785	258
Number of Girls	318	108
Total Number	1063	366
% who Know Nothing	13.8	10.3
Know Alphabet	33.0	26.2
Read Syllables	26.2	29.5
Read	21.8	24.8
Read well	4.9	5.7
Write	31.5	37.4
Add	10.6	10.9
Subtract	8.5	11.2
Multiply	3.2	4.3
Divide	4.0	2.7

2. Reports of the Inspectors of Schools. 1867. 1867-68 [4051] xxv. 1. page 336.

This picture of serious learning difficulties, widespread lateness and irregularity of attendance, and a high degree of indifference to schooling and what it had to offer was to be found repeatedly in the literature of succeeding generations. At the same time, however, the situation was ameliorated by the remarkable docility of most half timers and by the way in which they accepted the discipline of the school environment. As a result disruption was reduced to a level never anticipated by either the managers and teachers of the schools or by the parents of the day pupils, and this ensured that educational progress could be maintained.

Other problems failed to materialise. The recruitment of a second shift of children to maintain manning in the factories either did not take place or produced little or no effect on school attendance in the district - a reflection perhaps of the slack state of trade in the pottery industry when the Factory Acts were applied. And existing school accommodation in the Potteries was not overwhelmed by the sudden increase in the number of pupils. If the reports of the Factory Inspectors are to be believed this can be attributed to the willingness of the voluntary agencies to increase the number of school places in anticipation of the Act. An immediate increase of one thousand scholars was predicted for the Potteries as a whole and Robert Baker quotes a correspondent as saying, "as far as the educational part of this great process of improvement is concerned we shall try to make our school arrangements so complete as to prove there has been no lack of disposition on our part to welcome and really educate the

youthful workers." [1] On the other hand, it might have been the failure of demand to match up to expectations which enabled the denominational agencies in the Potteries - who had not hitherto shown any great ability to adapt to changing circumstances - to keep pace with the growth inthe number of half time pupils.[2] Whatever the causes, the schools coped well with the new system and within a very short time factory pupils were accepted as an integral part of the establishment, making a valuable contribution to the school's financial well being, and to be jealously guarded by the master or mistress.

Northwood Boys' School Log Book.

9th March 1866: "Learn that Mr Ashworth's half timers are leaving as Mr Ashworth wishes them to attend Shelton Church School. A loss of from twenty five to thirty boys."

27 March 1866: "Letter to John Lawton, Bailiff, Messrs Morley and Ashworth, Hanley.

Sir,

Several half time boys from Messrs. Morley and Ashworth have been attending this school for some time past and lately one or two have left through you desiring them to attend a school which neither the boys nor their parents like. As the boys alluded to reside near this school and I am wishful to continue them as pupils you will be good enough to tell them to return to me and no further notice will be taken

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1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3557] xx. 573. page 99.
2. See section II.

of the undue influence you have used in this affair.

I am, sir, your obedient servant,

W. Shawcross.

Note

"Sends word that they have attended as usual." [1]

The tone of this letter tells us more about the success or failure of the educational clauses of the act than volumes of inspectorate reports, and even more so when one takes into account the fact that Northwood Boys School already suffered from serious overcrowding and was not even included in Robert Baker's list of schools with places available for half time children. [2]

If the act was a success, however, it was - and could only be - a qualified success. For, as long as factory legislation applied only to one of the staple industries of the district there was bound to be a large scale movement of children into those industries which lay outside the law. The response was as immediate as it was predictable. Within months of the introduction of the first Factory Acts Extension Act agitation was under way - led, as usual, by the Factory inspectors - not only for the extension of Factory Legislation to all children under the age of thirteen but also for legislation for the "children that are to be found in every community who, either from orphanages or from being the offspring of neglectful or vicious parents, or being themselves of large

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1. Log Book of Northwood Boys' School.
2. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3557] xx. 573. page 101.

families, or from the low rate of local wages, or from accidental circumstances are unable to attend school for want of pecuniary means." [1] These children would be dealt with "by another general act ..... applicable to agriculture as well as industry, in fact to all employers whatever. This would absorb all the remaining children which the Factory Acts left untouched, with the exception of wanderers who live by chance, and for whom homes and institutions might have to be established." [2]

When further legislation came - as it did in 1867 - it fell far short of these expectations. In a second major extension of the Factory Acts legislation was brought to all blast furnaces, iron mills, foundries , copper mills, machine and metal works, and all rubber, paper, glass, tobacco and print works employing more than fifty hands.[3] And, in an attempt to close some of the obvious loopholes the Workshops' Regulation Act was introduced to regulate working conditions in premises employing fewer than fifty hands. [4] An obvious tightening of the noose and yet one which produced not a great increase in the number of half time scholars but rather the wholesale dismissal of young children from the industries so regulated, with a resulting

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1. Reports of the Inspectors of Factories. 31 October, 1866. 1867 [3794] xvi. 327. page 119.
2. Ibid.
3. Bill for the Extension of the Factory Acts 1867 (622) iii. 1.
4. Bill for the regulation of hours of labour for children, young persons and women employed in workshops. 1867. (63) iii. 121.

increase in the number of children on the streets.

Many factors, other than the attitude of parents who were inevitably "too careless, too poor or too grasping to educate their children without some form of compulsion", [1] contributed to this failure. In the first place, as with the Act of 1864, legislation was introduced at a time of industrial depression which made it comparatively easy for employers to dismiss children rather than to bother with the tiresome restrictions of the Acts. This tendency was increased by the fact that once again the age at which legislation applied was increased in stages and was not scheduled to reach thirteen until 1870. Such a policy, obviously designed to help employers in the application of the Act, also gave them the opportunity of dismissing successive age groups as soon as they came under regulation. Not that many employers needed any encouragement since the industries concerned in this latest extension of the Factory Acts were undoubtedly industries with specific problems which made the introduction of the half time system difficult. The smelting industries - whether it be of iron, copper or glass - were forced to operate continuously and, this meant that night shifts were essential. The Factory Acts prohibited the employment of children at night and it is not surprising, therefore, that, when such industries came under the Acts, all children under the prescribed age were immediately dismissed. So much so that in

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1. Reports of the Inspectors of Factories 31 October, 1868. 1869 [4093 - I] xiv. 123. page 365.

North Staffordshire where iron working was a major industry, the local factory inspector, Captain May could claim that he was not aware "of a single child having been sent to school from the iron mills in my district ..... and few, if any of those boys who have been discharged as under thirteen years of age have been subsequently sent to school by their parents". [1] And in Britain as a whole the results of the 1867 Act appear to have been little more promising sinceAlexander Redgrave could write that "in the whole of my district (which comprised half of Great Britain) there have been only 733 new half timers attending school. In other words the effect has been to replace younger by older children ". [2]

The failures of the Factory Acts Extension Act were compounded by the greater failings of the Workshop Regulation Act. In this case the worst fears of the factory inspectorate were realised for the new act departed radically from the provisions of the Factory Acts and responsibility for enforcement was placed with local authorities rather than with the government inspectors. In the case of the Borough of Hanley this responsibility rested within the General Purposes Committee which in turn appointed an Inspector of Workshops. With a fine regard for financial stringency the committee preferred

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1. Reports of the Inspectors of Factories 31 October, 1868. 1869 [4093 - I] xiv. 123. page 364.
2. Ibid 30 April, 1869. 1870 [4093 - I] xiv. 465. page 496.

to add such duties as were involved to those of the Smoke Inspector, Mr T. B. Roberts, increasing his salary from £65.00 to £78.00 per annum. Carrying the procedure to its logical conclusion, two months later, on 25 June, 1869, the committee appointed the same Mr Roberts Inspector of Nuisances and, on 29 November of the same year, Inspector of Weights and Measures at a salary of £80.00 per annum.[1] In a plaintive plea for a salary increase which came before the committee on 30 August 1870, Mr Roberts pointed out that, in an attempt to inspect 422 premises as the Inspector of Workshops and 967 premises as Inspector of Weights and Measures, he was "having to put in five hours overtime each day." Hardly the most efficient way of enforcing the new government regulations and certainly one guaranteed to invoke the wrath of the full time Factory Inspectorate.

In spite of these burdens, however, Hanley's Inspector of Workshops embarked upon his daunting task with commendable enthusiasm and optimism, and with an ability to view conditions with a freshness and naivity no longer noticeable among Her Majesty's Inspectors.

"I have met in my inspection encouragements and discouragements amongst the children and their parents but upon the children's side I found an almost unanimous wish to go to school. Whether this arises from a real desire for learning in every case or whether they rejoice that it will be a means of relieving them from labour

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1. Minutes of the Hanley Borough Council General Purposes Committee. 30 August, 1870.

during that period is hard for me to say.

There is one case which I would like to mention, being the reply from a poor ignorant lad. When I told him that he must attend school (which he had never done before) he said "Then I should be able to read my Bible." I asked him what made him want to do this, to which he replied that a kind lady had given him the Bible and he was anxious to know what was in it for, he says,

'I have never heard it read for neither my father nor my mother nor none of us can read'. [1]

This 'poor ignorant lad' was in a minority or, failing that, he became one of the many for whom education soon lost its appeal, for in report after report the Inspector did little more than chart a depressing decline in the number of half time children employed in the workshops of the town. [2] Some of these children may have become full

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1. Minutes of the Hanley Borough Council General Purposes Committee. 22 July, 1869.
2. Reports of T. B. Roberts, Workshop Inspector. 25 June, 1869 - 28 June, 1870. Contained in the Minutes of the Hanley Borough Council General Purposes Committee.

DATE OF REPORT	CHILDREN UNDER 13 EMPLOYED IN WORKSHOPS	
	NOT AT SCHOOL	AT SCHOOL
25/6/69	201	14
22/7/69	265	17
21/10/69	-	193
28/12/69	-	170
31/3/70	-	110
26/6/70	-	91

time scholars but the majority certainly did not and the main result of the act in Hanley was to force children to seek even more unsuitable employment in the few remaining unregulated industries or to drive them onto the streets. In short, the Act was a failure and this in spite of the fact that its regulations were much less severe than those of the Factory Acts. [1] In fact the school attendance clauses were generally regarded as little short of disastrous since they allowed schooling to be crammed into two days of the week after which a child could be employed full time. The words of the Sub-Inspector of Factories in Devon and Cornwall, Mr Buller, are perhaps a fitting epitaph.

"As an education measure the Act seems to have altogether failed. No one will have anything to do with half timers who can possibly avoid it. All, or almost all have got rid at once of their half time hands; and that provision of employing temporarily children of 11 and 12 as full timers i.e. as if they were already 13 has been a merciful one for it has saved from prompt dismissal many children under thirteen" (the provision referred to was the decision to increase the age of full time employment

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1. The main provisions of the Workshop Regulation Act of 1867 relating to children were:
   a) To forbid the employment of children under the age of 9.
   b) To limit the length of the working day for children to 6½ hours.
   c) To restrict these hours to the period between 6 am. and 8 pm.
   d) To enforce a school attendance of at least 10 hours per week and to require a certificate of attendance.

to 13 in stages). [1]

Although it must have been increasingly obvious that a law of diminishing returns applied to the educational clauses of successive extensions of factory legislation, the campaign was far from over and many still shared Robert Baker's dream that "the way forward lies in the steady combination of labour and education which shall render the next generation intellectually strong and thus enable it to think politically and economically right". [2] For him and for his followers it was "the educational power that constitutes the great value of the half time system; a system which educates men and instructs women without their being aware that they are compelled to learn; which lifts parents .... step by step out of vicious habits by the manifest excellence of their children". [3]

Given such beliefs, the means of achieving them were equally clear. The deficiencies of the existing acts should be remedied and in particular the provisions of the Workshops Regulation Act should be brought into line with those of the Factory Acts and should be applied by the factory inspectors. This could be achieved either by applying factory legislation to businesses employing fewer than fifty hands or by applying it to all establishments employing children. And this change would be accompanied by a simplification and standardisation of the Factory Acts themselves, particularly with regard to the length of the

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1. Reports of the Inspectors of Factories. 31 October, 1869. 1870 [C77] xv. 75. page 255.
2. Ibid 30 April, 1869. 1870 [4093 - II] xiv. 465. page 541.
3. Reports of the Inspectors of Factories. 30 April, 1869. 1870 [4093 - II] xiv. 465.

working day, the replacement of surgical certificates by birth certificates wherever possible as a proof of age, and the rationalisation of the penalties for breaking the law. In addition, the half time system ought to be strengthened by raising the age of full time employment to fourteen and by imposing educational standards which "a child must pass to go to work just as he now has to pass the doctors". [1] Finally, and in the eyes of the factory inspectors perhaps most important, the campaign for the extension of legislation to all industries should be intensified, thus ensuring that the most obvious loophole in the system was firmly closed.

In North Staffordshire it was two industries which gave most cause for concern - mining and brick making. Regulations for the employment of children in mines already existed [2] but enforcement of the education clauses was effective only in the largest pits and, since the scale of operation was often small, large numbers of children could escape the effects of legislation. The result was that the larger employers dismissed children who then often tried to find work in unregulated pits.

"The rule is to employ no boy under twelve years of age. The masters, agents and charter masters appear as unwilling now as they were when the Act first came into

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1. Reports of the Inspectors of Factories. 31 October, 1869. 1870 [C77] xv. 75. page 37.
2. Bill for the Regulation & Inspection of Mines, 1860. 1860 (40) iv. 745.

operation to undertake the trouble and responsibility of obtaining the certificates required by the education clauses ... With the great demand for labour, a high rate of wages continues and facilities are offered for sending them to trades where ignorance is permitted and I fear that the majority of future pit boys will grow into manhood as ignorant as they were before the education clauses were enacted". [1]

In the brickyards the situation was even more serious for, because of the small size of the firms and the seasonal nature of much of the work, the industry had virtually escaped legislation of any kind. As a result the employment of children was widespread and abuses were so common that great concern was expressed about the physical and moral well being of these children.
"I consider the employment of children in brickyards as absolutely cruel and that the degradation of the female character in them is complete .... The labour is too hard for children. A boy of eleven years of age was carrying fourteen pounds weight of clay on his head and much more within his arms, backward and forward from the temperer to the brickmaker, walking eight miles a day upon the average of six days". [2]
And, if the reaction of J. Nash Peake, the owner of Tunstall Tileries, was typical, this concern would appear to have been justified.

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1. Reports of the Inspectors of Mines. 1863. 1864 [3389] xxiv. 1. page 129.
2. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 548.

"Now, sir, it is possible that reform may be healthily introduced into the brick and tile trade but it won't be done by such extravagant papers as Mr Smith's. Six penny worth of books, sixpenny worth of school at an age when sixpenny worth of buns would be most children's choice, savours of too much goody goody". [1]

The decade drew to a close, however, with the situation unresolved. There were no further major extensions of factory legislation and the proponents of the indirect compulsion which it offered were left with the feeling that success was tantalisingly close and that with one more effort the balance could be decisively tilted. And it seemed so little to ask after a struggle lasting almost a half a century. At the same time, the education clauses which were at the heart of the Acts were coming under a scrutiny which was to become more and more intense as the formulation of the Elementary Education Bill proceeded and as the possibility of a more direct form of compulsion grew. Were the Acts succeeding, that was the question? Could we, like Robert Baker, look forward to "a time when the leisure which is now being granted, together with education will have effected all those moral and social changes among the workers which it is certain to effect when diligently pursued; and when by thrift and economy of means, more heads of families may have become units in the political element of the country, by exchanging the practices and vices of barbaric times for the enlightenment of the

1. Staffordshire Sentinel 29 October, 1870.

age in which they live". [1] Or was the Mayor of Hanley, Councillor Thomas Piddûck nearer the truth when at a meeting of the town council, called to discuss the Elementary Education Act, he said, "we have all the children in school whom we can possibly get there under present circumstances. The only thing is to adopt the Act compelling all to go to school". [2]

Faced with such a choice it is not surprising that the members of the Hanley School Board hesitated or that, in company with other similar bodies, their espousal of the compulsory powers offered by the Act was less than whole hearted. In this they were not alone and doubts about the efficacy of indirect compulsion were arising in the most unexpected quarters. Captain May, the sub-inspector of factories in North Staffordshire who had enthusiastically reported that the introduction of factory legislation to the Pottery industry had resulted in the number of half timers increasing from nil in January 1865 to nearly three thousand in 1867, [3] was not optimistic about the effects of later legislation.

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1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 553.
2. Staffordshire Weekly Times 12 November, 1870.
3. Reports of the Inspectors of Factories. 31 October, 1867. 1868 [4010] xxviii. 143. page 261.
"The number of half timers has increased beyond my expectations, having reached 2951 ie. 2074 boys and 877 girls. There are still two or three schools from which returns have not been received. I estimate the total number of scholars at 2980 ... I hope that this is satisfactory evidence of the working of the Act in the earthenware districts, considering that on 1 January, 1865, I believe none of these children were attending school in conjunction with labour".

"The Act (i.e. the Factory Act Extension Act of 1867) has not caused any serious difficulty in procuring hands though it has led in some cases to a considerable increase of wages; but more difficulty is naturally expected when the age for full time employment by day is raised to 13 on the 1 July, 1870. On the other hand it has apparently done little for education as the half time system is impossible of adoption in some of the principal trades to which the law applies and a majority of children whom it has restrained from labour in iron mills and other factories have found work equally unsuitable to their age in coalpits, brickfields and elsewhere. At few schools have I found any appreciable increase in the number or age of scholars which could be attributed to the Act ... I conclude, therefore, that, as a rule, where the half time system cannot operate, compulsory school attendance of some other kind is required to make a Factory Act effectual as an educational agent". [1]

No suggestion here that the way forward could lie in the extension of the Factory Acts "to their upmost limits". [2] Rather an acceptance that, if such legislation had succeeded in its educational aspirations, that success had been far from complete and was capable of little

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1. Reports of the Inspectors of Factories. 31 October, 1869. 1870 [C77] xv. 75. page 256.
2. Ibid. 31 October, 1865. 1866 [3622] xxiv. 221. page 356.

further development. In short, the way forward lay in direct compulsion, with all that it might entail in terms of abolition of fees, the undermining of the position of the churches and, the eventual destruction of the half time system itself.

ENROLMENT and the effectiveness of factory legislation

What was the situation in Hanley at the beginning of 1871? To what extent had the voluntary system met the educational needs of a growing industrial town? Had the introduction of factory legislation pointed the way forward to a golden future or had the limits of its usefulness been reached? The arguments of the propagandists are as strong today as they were when they were first propounded more than one hundred years ago and it is all too easy to seek out those which confirm our twentieth century prejudices and allow us to recreate the picture in our own image. Fortunately, by a nice juxta-position of historical event, a more objective assessment can be made. For, within three months of the Hanley School Board taking office, the eighth decennial census of Great Britain was carried out and the status of every child in the town was recorded. As a result, the effects of the voluntary system can be seen virtually at the moment of its compromise and a yardstick is provided against which the attitudes of the day can be measured.

What were these attitudes, so forcibly expressed by so many interested parties? What were the assumptions which underpinned the decisions of the Hanley School Board? Extreme as individual stances may have been, there were in fact areas of common ground. It was, for example, generally accepted that the prohibitory clauses of the Factory Acts had been effective and that, as a result, there had been a considerable reduction in the number of children employed in manufacturing industry. Furthermore,

it was known that this trend had been strongest among young children and that the worst abuses of child labour, namely the employment of children under the age of ten had virtually ceased. Beyond this point, however, agreement ended and, throughout the period leading up to the formulation of the 1870 Act, argument raged about the effectiveness, or otherwise of the educational clauses of the factory legislation, as applied to North Staffordshire, and about the effectiveness of the existing system in bringing children into the schools. Not even the most ardent advocate could pretend that the existing situation was ideal but are we to believe, as the factory inspectors suggested and, as the members of the established church were so keen to reiterate, that enrolment into schools was increasing at such a rate that the problem would, within a very short time, be resolved by the voluntary agencies aided by nothing more than an extension of the half time system? Or does the truth lie nearer to the views of that growing body of opinion which felt that the problem was much more serious and probably beyond the powers of the voluntary system to resolve? According to this latter school of thought half time schooling had failed almost completely in North Staffordshire and non-attendance at school was not confined to that small underprivileged group which lay beyond the pale of respectable society but was widespread among the working classes. These questions are not new; they have been the subject of debate on many occasions and judgement has been passed on them. It was passed when the school boards were set up; it was reiterated when, by allowing a massive programme of school building and by abolishing fees, the

	Minimum Age of Employment	Hours worked
1. Act for the Regulation and inspection of Mines 1860.	10	
2. Factory Acts Extension Act, 1867 (applied to the Pottery industry in North Staffordshire).	9	6½ during the day shifts
3. Factory Acts Extension Act, 1867 (applied to Ironworks, Engineering & Printing in North Staffs).	9	6½ during the day shifts
4. Workshops Regulation Act 1867.	9	6½ between 6 am and 8 pm

Factory Legislation in North Staffordshire

position of the voluntary agencies was finally completely undermined; and it has continued down to the present day in so many histories of education. But is that judgement fair and, more specifically could it be applied to the borough of Hanley in 1871?

1. The Effect of the Prohibiting Clauses of the Factory Acts

The main aim of factory legislation throughout the nineteenth century was to regulate conditions of employment in large sectors of British industry and, as part of this, to prohibit the employment of certain categories of people. Not unnaturally in this context, attention was centred on the employment of young children where the abuses were least capable of justification and about which there was increasing public resentment. These acts, when applied to the North Staffordshire Potteries from 1860 onwards not only prohibited the employment of children under the age of nine but also imposed severe restrictions on the hours which could be worked by children and young persons. [1] As we have seen, [2] the initial response of many employers in North Staffordshire was to dismiss all

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1. See table on page 144.
2. See pages 134 to 140.

	NUMBER OF CHILDREN EMPLOYED UNDER THE AGE OF 13					
	1861 (CENSUS)		1864 (INSPECTORS SURVEY)		1871 (CENSUS)	
	BOYS / GIRLS	TOTAL	BOYS / GIRLS	TOTAL	BOYS / GIRLS	TOTAL
POTTERY INDUSTRY: NORTH STAFFORD-SHIRE	3192 / 2006	5198	2396 / 1517	3913	- / -	-
: HANLEY	730 / 442	1172	548 / 331	879	187 / 92	279
ALL INDUSTRIES : HANLEY	- / -	-	- / -	-	281 / 166	447

TABLE: THE EMPLOYMENT OF CHILDREN

children from their employment, so avoiding the keeping of unwelcome records and, even more important, the need for a double shift system to accommodate such half time working.

If this was so - and the evidence is very strong - several major trends should be observed in the pattern of employment among children in Hanley.

1. The total number of children employed should show a marked decline after 1864, particularly in those industries which came under the jurisdiction of the factory inspectors.

2. This decline should be greatest among children under the age of nine.

3. The employment of young children should be restricted to occupations which lay outside the control of factory legislation.

The evidence for an absolute decline in the employment of children is overwhelming. If the pottery industry alone is taken, employment in Hanley declined (For table see page 145) from 1172 in 1861 to 279 ten years later and this decline appears to have been reflected in all parts of the industry throughout the district. Not only this, it took place during a period when employment in the pottery industry generally was rising. [1] Furthermore, since the employment of children in all industries in the town totalled only 446 in 1871, there can be no suggestion that the massive decline in employment in

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1. In 1861 total employment in the industry was 27,431 and in 1864 it had risen to 27,878. (Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 55.

the staple industry of the district was in any way compensated for by increased opportunities in other industries.

In fact one of the most striking things to emerge from the census is the extremely limited nature of the range of employment available to children in the town. So much so that no fewer than 75% of working boys were employed in two main industries, and , even more remarkable, 95% of girls worked in the pottery industry or were in service - the pottery industry alone accounting for more than 60% of all child labour. Factory legislation of one kind or another was extended (see page 145 for table) to most these major industries and, by 1871, domestic service was the only large scale source of employment to have escaped a degree of regulation. The effects of control and inspection, however, are not easy to discern in the pattern of child employment in the town. Certainly, the employment of very young children in potbanks, mines and iron works had virtually ceased, but the situation in these regulated industries was little different from that in unregulated establishments, and it would appear that industry in general adapted quickly to the loss of this source of cheap labour and managed to replace it without too much difficulty.

The lack of any clear distinction between patterns of employment in these two categories of industry inevitably raises questions about the part played by government

AGE	8		9		10		11		12		TOTAL		13	
INDUSTRY	BOYS / GIRLS	TOTAL	BOYS / GIRLS	TOTAL	BOYS / GIRLS	TOTAL	BOYS / GIRLS	TOTAL	BOYS / GIRLS	TOTAL	BOYS / GIRLS	TOTAL	BOYS / GIRLS	TOTAL
POTTERY	2 / 0	2	6 / 0	6	34 / 14	48	53 / 25	78	92 / 53	145	187 / 92	279	117 / 126	243
BRICKS	0 / 0	0	0 / 0	0	1 / 0	1	4 / 0	4	2 / 1	3	7 / 1	8	7 / 1	8
MINING	0 / 0	0	1 / 0	1	3 / 0	3	9 / 0	9	13 / 0	13	26 / 0	26	28 / 0	28
IRON WORKING	0 / 0	0	1 / 0	1	1 / 0	1	0 / 0	0	5 / 0	5	7 / 0	7	20 / 0	20
ENGINEER-ING	0 / 0	0	0 / 0	0	0 / 0	0	0 / 0	0	2 / 0	2	2 / 0	2	5 / 0	5
LABOURING	0 / 0	0	0 / 0	0	0 / 0	0	2 / 0	2	3 / 0	3	5 / 0	5	2 / 0	2
SHOPWORK	1 / 0	1	1 / 0	1	1 / 0	1	10 / 2	12	18 / 0	18	31 / 2	32	23 / 1	24
SERVICE	0 / 1	1	0 / 2	2	1 / 10	11	0 / 12	12	1 / 40	41	2 / 65	67	2 / 42	44
DRESS MAKING	0 / 0	0	0 / 0	0	0 / 0	0	0 / 0	0	0 / 1	1	0 / 1	1	0 / 3	3
OTHERS	0 / 0	0	0 / 0	0	1 / 0	1	3 / 1	4	10 / 4	14	14 / 5	19	23 / 4	27
TOTAL	3 / 1	4	9 / 2	11	41 / 24	65	82 / 40	122	146 / 99	245	281 / 166	447	227 / 177	404

EMPLOYMENT OF CHILDREN BY AGE, SEX AND INDUSTRY

legislation in changing the characteristics of child labour in the North Staffordshire Potteries. According to the factory inspectors the situation was transformed within a short time of the introduction of the Factory Acts Extension Act in 1864. A glance at page 146 shows, however, that the employment of children had started to decline some years before this date. In Hanley, for example, the number of children working in the pottery industry fell by 293 between 1861 and 1864 - a period when employment in the industry was generally rising and when government regulation was non-existent. After 1864 the decline appears to be more dramatic and 600 jobs were lost in the period leading up to the census of 1871. [1] Appearances can be deceptive, however, and these figures indicate an annual rate of decline which is not significantly different from that which existed before the introduction of the acts.

How then can we account for the optimism with which the factory inspectors described the working of the Acts? It is of course possible that they were simply justifying their own existence but it would be wise to look for other explanations. The most likely is that the reduction in child employment, when it did come, did follow the

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1. The actual figures for child employment in Hanley were:
   1861 - 1172
   1864 - 879
   1871 - 279

introduction of the Acts, producing an immediate dramatic change which was not sustained. There is some evidence to support such an interpretation in the figures produced by the Workshops' Inspector for Hanley which record a rapid decline in the number of children employed in the town during the first year of inspection. [1] If this was the characteristic response to the introduction of legislation - and there is nothing in human nature to suggest that it would not be - then it would help to account for some of the disillusionment which gradually crept into the reports of the factory inspectors as memories of initial success faded and the first flush of enthusiasm died.

There is also a second factor which has to be taken into consideration. Every major package of factory legislation since the first Factory Act of 1833 had built into it educational clauses designed to force children into school. It is possible, therefore, to measure the success of such legislation not simply in terms of the number of young children who lost their jobs but in terms of the number of children who happily combined a life spent partly at work and partly at school - in short, the number who became half timers.

2. The Effect of the Educational Clauses of the Factory Acts

Unfortunately the introduction of the half-time system in North Staffordshire produced such confused patterns

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1. See page 133 (footnote). Child employment in workshops declined form 215 to 91 within the space of one year (1869-1870).

of behaviour that even the factory inspectors, traditionally the strongest advocates of its merits, were reduced to a state verging on the ambivalent. Not all of them would have shared the extreme doubts of Captain May [1] but, by 1870 the general consensus of opinion was that, while the Act of 1864 had been moderately successful, the Acts of 1867 had resulted in almost total failure. Even so, it is probable that the majority of people would have shared the opinion of Mr Scotock, Her Majesty's Inspector of Schools in the Midland area when he claimed that "in North Staffordshire the half-time system had done great good. [2] And, given such an assessment, it might reasonably be expected that by the end of the decade there would be a large number of half time pupils in Hanley.

	BOYS	GIRLS	TOTAL
January 1865	258	108	366
October 1865	-	-	559
October 1867	-	-	721

NUMBER OF HALF-TIME PUPILS IN HANLEY

Certainly the initial reports of the factory inspectors suggest that this would be the case. In his first survey of the effects of the extension of Factory Legislation to the district, Robert Baker established that there were 366 half-time pupils in Hanley. [3] Nine months later Captain

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1. See page 139.
2. Report of the Committee of Council on Education. 1869-70. 1870 [C165] xxii. 1. page 355.
3. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 539.

May reported that the number had increased to 559, [1] and by the time the second extension of the Factory acts took place there were 721 children registered as half time pupils. [2] And, although the legislation of 1867 was generally regarded as having failed in its educational aims, the Inspector of Workshops in Hanley did report an increase in the number of half timers from 14 in June 1869 to 193 in October of the same year. This did, however, represent a peak and succeeding months saw numbers declining rapidly until a figure of 91 was reached in June, 1870, exactly one year after inspection began. And by the time the Hanley School Board was in operation and in the throes of establishing its eductional priorities that figure had fallen to 37.

1869				1870				1871		
1	2	3	4	1	2	3	4	1	2	3
14	17	193	170	110	91	-	-	95	43	45

NUMBER OF HALF-TIMERS EMPLOYED IN SMALL WORKSHOPS IN HANLEY [3]

(QUARTERLY FIGURES)

Taken in isolation this trend may not be particularly significant since the Workshops Regulation Act was the least effective of all the factory legislation and the number of children involved was comparatively small. But if a similar trend is apparent in the number of half-timers created by the

1. Reports of the Inspectors of Factories. 31 October, 1865. 1866 [3622] xxiv. 251 page 344.
2. Ibid.
3. Minutes of the General Purposes Committee of the Hanley Borough Council.

extensions to the Factory Acts - and, as we have already seen, the same rapid build up took place in the months following the introduction of the legislation to North Staffordshire - then the implications are very serious and the failure of the education clauses can be taken as read.

Once again, however, no definitive answer can be given. The census returns for 1871 record only 62 half time pupils in Hanley - a figure which is totally unacceptable given the returns of the Workshops Inspector (see above) and the fact that a report by Mr Palmer of Longton stated that at the end of 1870 there were 3153 half-timers in the Potteries, which, if the proportions seen in earlier surveys were maintained, would give a figure for Hanley of more than 700.[1] It is obvious, therefore, that such a low figure can only be the result of an error of recording and that a number of half timers were entered as being full-time employment or even as full time scholars. As a result no completely accurate figure can be obtained but, by making a series of assumptions, a more realistic assessment is possible. For example, if the reports of the factory inspectors are to be believed, the application of the acts resulted either in the acceptance of the half-time system or in the wholesale dismissal of child labour. It seems likely, therefore, that by 1871

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1. Reports of the Inspectors of Factories. 30 April, 1871. Page 671. Previous figures indicate that approximately 25% of the half timers in the Potteries lived in Hanley. If this proportion is applied to the Mr Palmer's figures the pattern would be as follows:-

Half timers:			
In the Potteries	Boys - 2092	Girls - 1061	Total 3163
In Hanley	477	231	708*

almost all children employed between the ages of nine and thirteen would be half-timers. Such an assumption would give a very different set of figures with 447 potential half timers in the town (see below). This assumption itself, however, is hardly realistic since it is clear from contemporary literature and from the limited information contained in the census itself that the vast majority of half time pupils in North Staffordshire were employed in the pottery industry and that certain other occupations, such as domestic service and casual shop work added nothing

	BOYS	GIRLS	TOTAL
HALF-TIMERS IN THE CENSUS: 1871	42	19	61
POTENTIAL NUMBER OF HALF TIMERS	281	166	447
MODIFIED POTENTIAL EXCLUDING THOSE IN SERVICE ETC.	243	99	342
ESTIMATE BASED ON MR PALMER'S SURVEY OF 1870	477	231	708

ESTIMATES OF THE NUMBER OF HALF-TIMERS IN HANLEY: 1870-71

to the numbers attending school. For example, of the 61 half-timers recorded in the census, ninety percent worked as potters. By removing the most unlikely categories a figure of 342 half-timers is obtained, comprising 243 boys and 99 girls - a ratio which is almost identical to the one recorded by the factory inspectors in 1865. Whichever figure is taken, however, it is obvious that, only six years after its introduction the half-time system was contributing a remarkably small number of pupils to the schools in Hanley. And, when viewed as a percentage

of the potential school population in the age groups covered by the Acts, it becomes obvious that the contribution to schooling in the town was, and could be, only marginal.

AGE GROUP	BOYS	GIRLS	BOTH
9	2	0	0.9
10	9.5	3.5	6.6
11	20.7	7.3	13.9
12	35.6	15.4	25.3
9-12	12.6	5.1	8.7

HALF-TIME PUPILS BY AGE (EXPRESSED AS A PERCENTAGE OF THE TOTAL AGE GROUP)

Why then did the factory inspectors greet the application of the educational clauses to North Staffordshire with such enthusiasm and why did they remain so optimistic about their effects? One possible explanation is that the figures obtained from the census returns give an inaccurate impression and there are some grounds for believing this. The census presents a limited view at one moment in time - a still from a moving picture. This is important for it is clear from contemporary records that the half time system moved with the general economic cycles.

"In bad times the schools fall off in numbers, but some of the old scholars who have gone to work return to school and these are generally the best and most intelligent children I have to examine .... In good times there is always a great influx of ignorant and ill mannered children of ten or eleven years of age, whose parents never dreamed of sending them to school till they came to work as half timers and were compelled to attend". [1]

1. Reports of Her Majesty's Inspectors of Schools 1867 1867-1868 [4051] xxv. page 261.

Although the boom which followed the American Civil War had undoubtedly ended, the British economy had not yet moved into recession by 1871 so that it is unlikely that changing economic circumstances could cause an upsurge which would make the number of half timers significant in the education of the town. A more probable explanation, therefore, is that the trend which was produced by the introduction of factory legislation into the area was similar to that seen in relationship to the Small Workshops Act of 1867 and that the initial upsurge in the number of half time pupils conformed to the expectations of the factory inspectorate. When decline set in, however, it was comparatively slow and, because it went against expectations based on experience of the successful working of the educational clauses in the textile districts, was not readily accepted by the inspectors. By 1869, however, the more striking failures of the most recent extensions of the factory acts were becoming apparent to many observers and Alexander Redgrave, factory inspector for half of Great Britain, was quoting statistical evidence which suggested that the law of diminishing returns had set in as far as the half time system was concerned, and that its success in the textile districts could be attributed almost entirely to the initial acts. Later legislation had contributed virtually nothing to an improvement in the extent of schooling which had seen the number of children in schools in the textile towns rise from 4,958 in 1836 to 84,841 in 1867. [1]

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1. Reference on page 158.

	Textile Acts 1833 & 1844	Printworks Act 1845	Dye Works Act 1860	Lace Works Act 1861	Extension Act 1864	Extension Act 1867	TOTAL
Lancashire	24,542	1321	113	-	267	193	26,438
Yorkshire	33,948	57	38	-	63	352	34,458
Total	64,869	2217	372	192	518	773	68,901

NUMBER OF HALF-TIME PUPILS IN THE TEXTILE DISTRICTS IN 1868 (ACCORDING TO THE REGULATING ACT) [1]

1. Reports of the Factory Inspectors April,1869. 1869 [4093 - II] xiv. 465. page 500.

Taken in isolation, this evidence from Lancashire and Yorkshire is far from conclusive. The dominance of the textile industries in these areas was almost complete and any successful application of the educational clauses to these industries would leave much more limited opportunities for improvement when other industries were brought under the acts. But, as we have seen, there is strong evidence that the Factory Acts Extension Acts failed in other areas where the staple industries were not already under regulation. In North Staffordshire, for example, the number of half timers was disappointingly small while, according to Alderman Sadler, in the Birmingham area "the sole effect of the Act has been to throw children out of work with no educational benefits .... and a resulting rise in crime among young persons". [1] Pessimism about the educational future of South Staffordshire was not confined to Alderman Sadler. In his report on the Church of England schools in the district, Mr Sandford claimed that "there is no district which, from the nature of its various industries ..... and from the shifting nature of its population presents greater difficulties to the educationists or which shows more clearly the changes which will have to be introduced if education is to do the work it ought to do, for our greatest and most important populations". [2] And the changes he had in mind went far beyond the extension of existing Factory Legislation.

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1. Reports of the Factory Inspectors 30 April, 1869. 1869 [4093 - II] xiv. 465. page 541.
2. Reports of Her Majesty's Inspectors of Schools 1865. 1868-1869 [4051] Vol. xx. Page 197.

It is clear then that the half-time system had worked only in the textile districts, and that, even here, success was limited to the original legislation of 1833 and 1844. The failure, albeit in varying degrees of all later extensions to the original acts suggests either that there was something in the structure and organisation of the textile industries which made them particularly receptive to the education clauses of the acts or that the timing of the original introduction was particularly opportune. The structural differences between, for example, the cotton industry and the pottery industry are indeed striking. In the former units of production were generally large - so large, in fact, that some mills could support their own schools; the shift system was regular and very highly organised; mechanisation was extensive: and the factory owners were often very wealthy and considerably distanced from any working class origins. By way of contrast, the pottery industry was characterised by factories which were relatively small, and certainly not able to support private schools and by a system of working which was irregular to say the least. This irregularity was partly a product of the pattern of firing which could correspond to no convenient shift system, but it was intensified by the "worship of Saint Monday". [1] which disrupted work schedules, and by the dependence of a large number of unskilled workers on the activity of a smaller number of skilled workers, among whom drunkeness

1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 523.

and absenteeism were said to be rife.

"Four days work a week, or sixteen in a month, may be put as an average for most branches of the pottery trade when normally active and not interrupted by long holidays in August and November". [1]

A situation hardly compatible with a system of education which depended to a considerable degree on regularity and in which a day of work missed almost inevitably meant a similar absence from school. Add to this the fact that many of the owners had themselves only recently climbed from the factory floor - often with the help of little or no formal education - and it is not surprising that education generally was held in low esteem or that, for the majority of employers, the demands of keeping factory books and of organising a second shift system were sufficient in themselves to discourage them from accepting the educational clauses. Furthermore, the unhappy alliance of an irregular pattern of work and a double shift system could be expensive - a factor which could be critical in an industry with small scale units of production and a general lack of capital.

Such structural characteristics, shared to a degree by many of the industries which come under the regulation of the later factory acts, go some way towards explaining the failure of the educational clauses. But, as Robert Baker was quick to point out, the excuses produced by the master potters of North Staffordshire,[2] and no doubt, the

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1. Reports of the Inspectors of Factories. 31 October, 1866. 1867 [3794] xvi. 327. page 436.
2. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 530.

iron masters of the Black Country, the coal owners of South Wales and parents everywhere were no different from those heard in the textile districts in 1833. Is it possible, therefore, that more significant influencies were at work and that the half-time system - a response to the industrial conditions which existed in the early years of the century - was, by 1860, out of step with the times and approaching the end of its useful life? Could it be that the educational clauses of the Factory Acts gained acceptance because of the conditions which existed in the textile districts in the 1830's and 1840's and that by the time they were extended to the major industrial areas some twenty years later the situation had changed and the typical response to attempts to regulate industry was to dismiss child employees rather than to retain them as half timers? Such a scenario is not beyond the realms of possibility if, as seems likely, the demand for labour became less intense with Britain approaching the apogee of its industrial supremacy and if the revulsion against the employment of young children in any capacity became strong enough to overwhelm the lesser aim of ameliorating the existing situation by the inclusion of a degree of schooling. If this was the case then to view the educational future in terms of the extension of the factory acts was to seek progress by means of retrogression and the optimism of 1864 was doomed to disappointment.

Whatever the causes, the effects of factory legislation on schooling in Hanley can be easily summarised. In both quantitative and qualitative terms the education clauses failed. After an early influx the number of half-timers had

declined until by the end of the decade there were fewer than five hundred in the town - a situation which the factory inspector himself admitted could be remedied not by a simple extension of existing legislation but by either the imposition of minimum educational requirements for children prior to starting work or by the introduction of direct compulsion. Success could be claimed only in the reduction in the extent of child employment in the district but since this did not necessarily lead to increased schooling, it was a dubious success in the eyes of many observers who simply saw an increase in the number of children roaming the streets. In any case it did no more than transfer the problem to the voluntary agencies and it is clear that the success or failure of education in the area prior to 1871 depended upon them and them alone and that the Hanley School Board was correct in its concentration on their efforts and on the need for some form of direct compulsion. In the North Staffordshire Potteries at least the indirect compulsion of the factory acts was an illusion - a chimera to be pursued only at considerable risk.

ENROLMENT and the affectiveness of the voluntary agencies

In view of the obvious failure of the educational clauses of the factory acts, it is difficult to understand the ambivalence of the first Hanley School Board towards compulsion. Why, if indirect compulsion could be seen not to be working, were its members so loath to take advantage

of the compulsory clauses offered by the Elementary Education Act - the very clauses which they had advocated and adopted so enthusiastically as candidates? One possible explanation is, of course, that the failure of the factory legislation in North Staffordshire was not so apparent at the time as it now seems. The upsurge in half time education which followed the implementation of the acts may have masked the decline which then set in; and it is possible that the practice of employing casual labour was so widespread that the number of children at work at any given time was much greater than the number recorded in the census. A second explanation might be that the limitations of the education clauses were appreciated but that the alternative, direct compulsion, was too horrific to contemplate. Such a case had undoubted attractions for the representatives of the voluntary agencies who were in a majority on the Hanley School Board. They could - and did - argue that there was no great crisis in the education system; that the number of school places continued to outstrip the number of scholars; and that the rate of enrolment was increasing so rapidly that most children were already at school or would be within a very short time. Given this scenario, the need for direct compulsion was questionable and, if introduced it need be applied only to a small minority of the population to enforce enrolment, and to a larger number to ensure actual attendance once enrolled. Such a solution was preferable to universal direct compulsion since it conveniently avoided the conflict which surrounded the imposition of compulsion on a system of education controlled by denominational interests which did

not necessarily reflect the religious views of any given locality. It was this clash between educational and denominational interests which was to reduce the effectiveness of the voluntary effort and which, in the long term, was to be of much greater significance than the debate about the nature of religious instruction; for, in direct compulsion could lie the seeds of destruction for the church schools of England and Wales.

Against these sectarian interests was ranged a body of opinion - difficult to define but powerful, particularly in Parliament - which believed that the education system had reached crisis point, with less than half the potential school population actually on the registers of efficient schools and with little prospect of improvement given a rapidly growing population and voluntary agencies which were approaching the limits of their financial resources. By no stretch of the imagination, therefore, could the absentees from the classroom be described as a minority drawn from the poorest classes and concentrated in limited areas of industrial towns like Hanley. Rather, they were to be numbered in hundreds of thousands and to be found among all categories of the working classes and in virtually all areas. To resolve a problem on this scale not only was universal direct compulsion a necessity but an alternative source of school provision was desirable either to supplement or to replace the efforts of the voluntary agencies. The Elementary Education Act of 1870 tended to reflect this point of view although supplementation of the existing effort was its main aim and direct compulsion was to be local rather than universal. The action of the

Hanley Borough Council in immediately applying for permission to establish a school board in the town suggests that its interpretation of the evidence was similar to that of the government at Westminster and the campaign which led up to the election of the Board in December 1870 did little to question such an interpretation. Why then did the Hanley School Board act as it did during its early years of office? Can its attitude towards compulsion and school provision be explained simply in terms of hypocrisy or a cynical attempt by vested interests to prolong the influence of the voluntary agencies? Or could it be that its initial investigations showed that the case against the voluntary effort in the town was far from proven and that the churches had, in fact, achieved a much greater degree of success in enrolling children into their schools than had previously been suspected. In short, who did go to school in Hanley in 1871 and was there any coherent pattern of influences which helped to determine that decision?

ENROLMENT: The Extent of Schooling

According to the census carried out in April 1871 there were 8,464 children between the ages of three and thirteen in the borough of Hanley. This number comprised 4187 boys and 4277 girls. Of this potential school population no fewer than 69.0% were recorded as being on the register of a school on the day of the census. [1] In addition, of the 717 thirteen year olds in the town, some 29% were recorded as scholars. Such figures, if they are

1. If the half timers recorded as being at work are added to this number the proportion of children at school must have approached 74%.

STATUS	3 - 12 YEARS OLD (INCLUSIVE)			13 YEARS OLD		
	BOYS	GIRLS	TOTAL	BOYS	GIRLS	TOTAL
AT SCHOOL	2898	2943	5841	94	115	209
AT WORK	245	147	392	226	175	401
AT HOME	895	1050	1945	26	61	87
HALF-TIMERS	39	17	56	3	2	5
NOT RECORDED	109	120	229	8	7	15
TOTAL	4187	4277	8,464	357	360	717

THE STATUS OF THE CHILDREN IN HANLEY : (AS RECORDED IN THE CENSUS OF 1871).

accurate would appear to undermine the case put forward by the educational reformers, suggesting, as they do that in Hanley, at least, the voluntary agencies had been far from unsuccessful both in providing school places and in finding pupils to fill them. Given this rate of enrolment - and these figures bear a strong resemblance to those produced by the School Board itself [1] - it is difficult not to accept the church case and to view the problem as being wholly manageable within the existing framework. And such an assessment immediately raises the question of why there was such a strong movement for reform and why the government found it necessary to introduce measures which were, on the surface at least, so drastic.

Of the possible explanations, four are worthy of considerable attention:

1. It is possible that the situation in Hanley was completely untypical and that enrolment there was higher than in other parts of England and Wales.

2. There is also the possibility that, in making their case; the reformers introduced some qualitative assessment and, on these grounds, rejected many education establishments as being unworthy of consideration.

3. If neither of these factors was important, then it may have been that the remarkably high average figure for school enrolment disguised considerable variations and deep seated problems which could be resolved only by

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1. See page 40.

the introduction of a new agency for school provision and by the introduction of compulsion.

4. Finally it is of course possible that the success achieved in bringing children into the schools did not extend to keeping them there once they had enrolled and that the major problem was not of enrolment but of attendance.

Two of these explanations can be quickly dismissed. There is no evidence in any of the contemporary sources that the North Staffordshire Potteries even approached the national average in terms of the extent of schooling, let alone exceeded it. In fact, there is strong evidence to the contrary. For example, in a survey of "children who could and could not read who were applicants for factory work between September 1st and December 31st, 1866", no fewer than 48% of children in North Staffordshire could not read, compared with 36% in Macclesfield, the nearest of the textile towns and 32% in Bristol. [1] In the cotton areas as a whole it was claimed that 60% of children could read, 50% could write and 40% manage small sums - figures which far exceeded those produced by Dr Arlidge, a surgeon who examined one thousand children who had applied for employment in North Staffordshire. [2] Although it is

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1. Reports of the Factory Inspectors. 31 October, 1866. 1867 [3794] xvi. 327. page 489.
2. Ibid page 433.
   According to Dr Arlidge 42% were totally ignorant 24% manage small summs, 15% could write and 40% could read.

possible that these discrepancies stemmed from differences in the quality of the education provided, it is much more likely that such differences in basic standards were a direct reflection of the extent of schooling in the various localities. Certainly Mr Sandford, Her Majesty's Inspector of Church of England schools in the counties of Worcestershire and Staffordshire had no doubts on this point. Basing his assessment on observations made in South Staffordshire - an area which had virtually escaped the effects of factory legislation until 1867 and which was, by common consent, in a more backward state educationally than the North Staffordshire Potteries - he claimed that "a large proportion of our population are not in any way reached by our present system of education". [1] He also had no hesitation in attributing the blame for this state of affairs. It was not that school places did not exist; it was rather that schools were too respectable, fees were too high, buildings were too far away from the inhabitants of the new towns, the labour market was not effectively controlled and parental neglect was widespread. [2] A situation which bears considerable similarity to that described by Robert Baker in the Potteries in 1864.

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1. Reports of Her Majesty's Inspectors of Schools 1868. 1868-69 [4051] vol. xx. page 204.
2. Ibid.

An attempt to explain the apparently untypical behaviour of Hanley in terms of the introduction of qualitative assessments of educational establishments would appear to have a stronger foundation. The criteria used to standardise the collection of government statistics certainly included a strong qualitative element. In fact, the figures contained in the reports of the Committee of Council on Education included only schools which were under inspection and in receipt of the grant, and on this basis the proportion of children on the registers of so called 'efficient' schools was little more than fifty percent. [1] It would be reassuring to believe, therefore, that the much higher figures for Hanley were the product of including all schools regardless of efficiency. Unfortunately the surveys carried out by the first Hanley School Board - a body much more pre-occupied with the quantity of schooling available rather than its quality - do not support such a conclusion. Of the 6124 schools places thought to be available or in the course of provision no less than 82.3% were in 'efficient' schools; and, if the number of pupils is taken into consideration 91% are recorded as attending 'efficient' schools. [2]

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1. Reports of Her Majesty's Inspectors of Schools 1869. 1870 [C165] xxi. Of an estimated 3,430,335 children between the ages of 5 and 12 only 1,797,388 were registered as scholars (52.3%) and the proportion would fall below 50% if 3 and 4 year old children are included.
2. Minutes of the Hanley School Board 21 June, 1871.

Even if allowances are made for the enthusiasm of the Board to find additional school places, it is difficult to see how these figures can be used to explain away a rate of enrolment which according to the national census was approaching 75%. The discrepancy is simply too great to be viewed in such terms and it can have resulted only from major differences which must have existed between the administrator's definition of the term 'scholar' and the perception of parents concerning the status of their own children. For it is obvious that the former were excluding from their calculations a large number of children who were regarded by parents as attending schools. The most likely explanation for this state of affairs is to be found in the Revised Code itself. Rule thirteen states that "no child's name shall be kept on the register after a fortnight's continuous absence without inquiry of the parents whether the child has been withdrawn." [1] Administrative niceties of this nature may have appealed to officials who had to deal with a school population which was in a state of constant flux but they were hardly likely to impinge on the consciousness of parents for whom any random attendance at any educational establishment would automatically confer on their children the status of scholar.

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1. Report of the Committee of Council on Education. 1866. 1867 [3882] xxii. 1.

This being so, it is not surprising either that the findings of the Department of Education differed so markedly from those of the national census or that there was such a lack of unanimity about the exact nature of the problem and about the measures necessary for its resolution, particularly those measures relating to direct compulsion.

At one extreme in their interpretation stood the government officials who in their genuine concern for the quality as well as the quantity of education available to children of England and Wales, accepted as accurate levels of schooling which hovered ominously around the fifty percent mark. For them it was all too easy to share the opinion of Her Majesty's Inspector of Schools in Lincolnshire, the Reverend George Steele, that "all, or nearly all, the children who may be expected to attend school voluntarily are at school already. There remains a vast number who are not at school and these belong to the class who, of all others most need school because they are learning nothing, or worse than nothing at home." [1] And, in the face of such a crisis it was not difficult to believe that salvation could lie only in a form of direct compulsion designed not only to improve the attendance of children already on the register but also to drive into the schools that vast army of children which had so studiously ignored

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1. Reports of Her Majesty's Inspectors of Schools. 1870 1871 [C406] xxii. page 202.

all earlier blandishments and all existing forms of coercion. At the other extreme stood the representatives of the voluntary agencies who believed that this crisis had in fact passed, that the level of schooling was increasing rapidly and that the remaining problems could be resolved within the existing framework. While government statistics supported the existence of a strong upward trend in enrolment [1], few officials would have been prepared to accept levels of enrolment revealed by the census which were, in the case of Hanley, no less than forty percent above official estimates [2] and which generally supported the arguments put forward by the churches. And, if the church case did have substance, then compulsion could be much less severe and directed largely at enforcing attendance rather than enrolment - in short, a form of compulsion which was conveniently most compatible with the continuation of religious instruction in a system of universal schooling. It was at this end of the spectrum

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1. Report of the Committee of Council in Education 1869 1870 [C165] xxii. 1.
   The number of children in average attendance rose from 748,154 in 1859 to 1,245,027 in 1869.
2. Statistics of percentage enrolment in schools according to age group are as follows:

Source	3 + 4 yrs old	5-13
Official National Average	-	52%
Hanley School Board Census	35.3%	71%
National Census (Hanley)	51.1%	74%

that the indirect compulsion of the Factory Acts had its greatest appeal. Finally, occupying a position somewhere between these extremes, was the Hanley School Board. The very fact that it had been called into existence can be taken as a reflection of the effectiveness of the official campaign for educational reform and of the fact that "public opinion had evidently moved rapidly in the direction of general compulsion". [1] At the same time its activity - or lack of it - during the early months of office, and in particular its lack of enthusiasm for the compulsory powers placed at its disposal may have stemmed from the air of compromise which surrounded the Elementary Education Act itself. It may also have reflected genuine confusion about the extent of schooling in the town - a problem which was to give rise to several investigations.

The first survey, based on returns from the schools, suggested that there were some 8,000 children between the ages of 3 and 13 in Hanley and that of these 3,663 were enrolled at public elementary schools and 200 at private adventure schools. This represented an enrolment rate of 47.5% of the potential school population. [2] One month later this potential population had risen to 8,126, of whom 1992 were under the age of five and, therefore, not liable for consideration under the compulsory clauses of the new bye-laws. At this meeting it was estimated that there were "eighteen hundred children not attending school but on whom, under the Bye-laws, when sanctioned, the Board

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1. Reports of the Committee of Council on Education 1870 1871 [C406] xxii. 1. page 202.
2. Minutes of the Hanley School Board 19 April, 1871.

will be able to enforce attendance".[1] This represented 29.3% of the population between the ages of five and thirteen - the base upon which the School Board was then working - an estimate which implied a rate of enrolment greater than 70 % among the target population. The meeting of 21 June saw the bye-laws finalised and sealed and "the attendance at school required of all children between the ages of five and thirteen years. Parents and Guardians refusing or neglecting to comply with such requirements render themselves liable to a fine unless there be reasonable excuse for absence". [2] And, in an attempt to establish the scale of the problem likely to be faced by the officers employed to enforce the bye-laws, yet another set of statistics was produced, based this time on the numbers actually attending school on 16 May, 1871. These figures are significant in that, if accurate, they

	AGE 3-13	AGE 5-13	AGE 3 and 4
TOTAL POPULATION IN AGE GROUP	8126	6134	1992
AT PUBLIC ELEMENTARY SCHOOLS	3551	-	-
AT INEFFICIENT SCHOOLS OR AT SCHOOLS OUTSIDE HANLEY	650	-	-
TOTAL AT SCHOOL ON 16/6/71	4201	3498	703
PERCENTAGE OF AGE GROUP AT SCHOOL	51.6%	57%	35.2%

ATTENDANCE AT SCHOOLS IN HANLEY: 16 MAY, 1871 [3]

1. Minutes of the Hanley School Board. 17 May, 1871.
2. Minutes of the Hanley School Board. 21 June, 1871.
3. Ibid.

suggest a rate of attendance which was higher than the national statistics for enrolment. No comparable national figures exist but in the returns for 1869 the average attendance during the year was 36.2% of children between the ages of three and thirteen, compared with an enrolment rate of 52.3%. [1] It is obvious, therefore, that enrolment rates greatly exceeded levels of attendance, although it is impossible to quantify any relationship between average attendances and the attendance on any particular day. The members of the School Board were not unaware of the existence of these discrepancies and they displayed few inhibitions in making a suitable allowance for them. Facing an apparent deficiency of accommodation of 1142 school places, they disposed of it by making four existing schools efficient and by assuming a level of "unavoidable absence" of about ten percent. If this figure bears any relationship to the real situation then the overall enrolment rate for the 3-13 age group rises to 57%, with enrolment among the children covered by the bye-laws approaching 63% - a figure some way short of the 70% estimate of May but still far higher than official government estimates.

Forty seven percent, fifty two percent, fifty seven percent, sixty two percent, seventy percent or seventy four percent! The confusion is obvious; the only certainty is that the official case was far from proven. And, if such basic items as enrolment rates are open to question, what of the patterns of enrolment and attendance which underlie these rates - patterns of unbelievable complexity,

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1. Report of the Committee of Council on Education 1869. 1870 [C165] xxii. 1.

involving the intricate interplay of varied social forces but patterns about which contemporary sources were equally certain ..... and possibly equally suspect?

ENROLMENT: who went to school?

If there were, as the census states, 9187 children between the ages of three and fourteen living in Hanley in 1871, then 9187 individual decisions were taken as to whether or not each child would attend school. Furthermore, each of these decisions was unique, taken in circumstances which could never be exactly repeated in any household in any town in Britain. Even when the decisions involved twins living under the same roof the pattern of influences at work would differ slightly, whether it be in the parents' feelings towards a child or in the economic situation of the family which might preclude one child from attending school. To interpret such a complex pattern of decision-making at a distance of more than one hundred years would require a degree of empathy granted to few historians; the more so since few, if any of the existing records were written by the people who made those decisions. In almost every case the only information available is second hand, recorded and interpreted by outsiders, usually officials at a national or local level, who were themselves hardly likely to be free from bias in their interpretation of the situation. It is upon these records - the records of Her Majesty's Inspectors of Factories and of Schools, neither of whom could have escaped the temptation to maintain or, better still, extend their particular spheres of influence, to build their little empires; the daily logs of school teachers, working under the pressures imposed by a ruthless

system of payment by results and displaying, not unexpectedly an unusually jaundiced view of the behaviour of their clientele; the pronouncements, often as reported by newspapers, of politicians who may themselves have had unknown axes to grind; and the comments of the newspaper editors themselves, often polemic and never unbiased - that our own interpretations must be based. In these circumstances how can truth be separated from lies, how can unbiased reporting be distinguished from propaganda, how can objectivity be drawn from such a complex web of subjectivity? The problem would appear to be insuperable, and , if emphasis remains centred on the individual then surely it is and virtually any interpretation of the sources can have a degree of validity. If, however, the decisions of the individual can be approached through the patterns displayed in society as a whole then a degree of objectivity may be achieved which can be set against the anecdotal evidence which abounds both for the period and for the subject.

For the years 1870 and 1871 three major sources of statistical data are available to the historian. The census carried out in April 1871 gives details of every family living in the Borough of Hanley, including the vital information as to whether or not each individual child was attending school. This provides the dependent variable in any statistical analysis to be carried out and, by using techniques such as multiple regression or analysis of variance,it is possible to establish how this dependent variable is influenced by a number of other variables, known as the independent variables. Using the census alone it is possible to build up an impressive battery of variables relating to the individual child

and the family and household to which he belonged. In addition, from the Rate Books for Hanley and Shelton which are available for the year 1870 details of the occupancy of individual houses can be obtained, including the type of tenancy and the value of the property. Finally, the log books of various schools include lists of scholars submitted to the Department of Education at various times. Some of these give the age of pupils, the standard reached and the number of attendances made. Add to this, the fact that each house can be located on the large scale maps of the town which were published in 1865 and 1866, and it is obvious that, given the appropriate statistical techniques the relative importance of a large number of influences on school enrolment can be obtained and a deeper understanding of the complex interplay of these socio-economic variables becomes possible. [1]

Method of Analysis

The method chosen for this analysis is multiple regression - a technique which allows the analysis of the complex relationship between a dependent variable and a set of independent variables. Although multiple regression can be used as a predictive or inferential tool, it is here used in a descriptive manner to explain the complex relationships which existed in Hanley in 1871 between a range of socio-economic variables and school enrolment and school attendance. Used in this way, the method has several important advantages over other comparable statistical techniques. In particular, the independent

1. A full list of the variables used is given in Appendix A.

variables need not be studied in isolation; instead the full battery of variables can be introduced and, from the multiplicity of influences involved, it is possible to obtain an accurate assessment of the unique variance of each variable. In short, it becomes possible to measure the individual contribution made by each variable to the complex pattern of school enrolment which existed in the town, secure in the knowledge that confounding factors such as correlations between the independent variables can be controlled and that significance tests can be applied to establish whether or not individual contributions are statistically significant. Not only this, multiple regression techniques can be adapted to cope with any scale, whether it be rational (i.e. continuous with a true zero), interval (continuous with an arbitrary zero), ordinal or nominal. For example, in the study of school enrolment the dependent variable, the status of each child, is represented on a nominal scale i.e. each child either attends school or does not attend school, and the method of analysis used is an adaptation of the basic techniques of multiple regression so as to cope with nominal scales. At the same time, however, the independent variables can be represented on a variety of scales so that the potential loss of information produced by the introduction of artificial groupings can be kept to a minimum. It is this facility more than any other which led to multiple regression, albeit in a modified form, gaining preference over other comparable statistical techniques such as analysis of variance. [1]

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1. For a more detailed description of the techniques used see Appendix C.

The use of multiple regression techniques with nominal scales is not without its problems. In fact regression is possible only if variables on a nominal scale are regarded as a set (g) with a number of categories e.g. the dependent variable, STATUSC is a set comprising five categories: 1 - SCHOLAR, 2 - AT HOME, 3 - AT WORK, 4 - HALF TIME SCHOLAR, 5 - STATUS NOT KNOWN. Because, the final category is fully redundant and explained completely by the others it is necessary to use only g - 1 categories from each set. Information can then be coded in various ways to allow analysis by multiple regr ession techniques. The method used here is that of dummy variable coding by which each set is represented as g - 1 dichotomies. In this case the only requirement is that observations are assigned to mutually exclusive and exhaustive categories i.e. each case is assigned to only one of the groups in the set. Given this, it becomes possible to establish a major dichotomy between one of the groups in the set and the rest upon which analysis can be based. This can be seen quite clearly from the following example which uses the dependent variable STATUSC:

Set - STATUSC	Number of Groups - 5	
	Case 1	Case 2
g^1 - Scholar	Code 1	0
g^2 - At Home	0	0
g^3 - At Work	0	0
g^4 - Half time scholar	0	0
g^5 - Not known	0	1

In case 1, therefore, it is clear that all scholars score 1 while all non-scholars score 0. At the same time, the redundancy of the fifth category is clearly revealed in

case 2 since a score of 0, 0, 0, 0 must designate any case to that group. The redundant group has no representation in multiple regression analysis but it is very important since it functions as a reference group against which regression coefficients are calculated. It is also important to declare one group redundant and to omit it from the analysis since inclusion will prevent the solution of the regression equations. Using dummy variable coding it is then possible to obtain most of the statistics offered by standard multiple regression techniques, including:

1. Means which are based on the proportion of cases in any given group.
2. Standard Deviations.
3. Product moment correlations(r) together with a sign ($\pm$) which indicates the direction of the relationship between a group and the non-members of the group.
4. r^2 which gives the proportion of variance explained by any independent variable i.e. the proportion by which the error is reduced. This is based on the difference between the group means and the grand mean e.g. when there is no difference between one group and the rest of the sample $r^2 = 0$ while, at the other extreme, when all group members have one score and all others have another score the error would be reduced by 100% and $r^2 = 1.00$.
5. Partial and semi partial correlation coefficients (pr and sr respectively).
6. The regression coefficients (B).

7. Significance tests for correlation and regression coefficients notably Students t Test and the F test which can be applied to individual variables in the regression equation in order to determine whether their influences are statistically significant i.e. whether their estimated coefficients differ significantly from zero, indicating that a significant relationship exists. Such tests help determine whether a true null hypothesis has been rejected or a false null hypothesis has been accepted.

This amounts to a powerful battery of statistics but, even so, care must be taken in their interpretation and every effort must be made to keep error to a minimum. This can be done by using protected t test techniques i.e. by proceeding with t tests on components only if the F test for the set of independent variables is significant at the required level; by using a hierarchical strategy i.e. by introducing sets of variables one at a time to build up the complete regression equation; and by concentrating on the variables which are most important i.e. introducing the minor variables later in the hierarchy. If these procedures are followed the results can be accepted with a degree of confidence.

There is, however, an immediate problem which has to be faced. Some of the potential influences obviously relate to the behaviour of individual children and can best be studied with the status of the child as the dependent variable (i.e. a scholar/non-scholar dichotomy); others are only relevant if they can be related to the behaviour of the family group and this requires a second analysis with a new dependent variable. The variable chosen - the

ENROLMENT: All Families

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 00,34320 STD. DEV. 47,00016

VARIABLE [illegible] IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	,21885	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES
R SQUARE	,04790	REGRESSION	52,	471747,10596
ADJUSTED R SQUARE	,03662	RESIDUAL	4390,	9376667,30256
STD DEVIATION	46,21041	COEFF OF VARIABILITY	09,7 PCT	

* MULTIPLE REGRESSION * *

DEPENDENT VARIABLE.. PRATIO

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE
1	FS2		,31044	,574	,01937	,00038	,00038
	FS6		5,02029	,025	,03950	,00156	,00119
	FS4		,05100	,821	,03991	,00159	,00003
	FS8		,20194	,653	,04099	,00161	,00001
	FS5		,00063	,980	,04040	,00164	,00004
	FS7		11,22705	,001	,07050	,00497	,00333
	FS3		,05508	,814	,07153	,00512	,00015
	FS9		104,44077	,000	,16737	,02801	,02289
			,00758	,309	,16912	,02860	,00059
2	T2		4,92294	,027	,17526	,03072	,00212
	T4		6,93550	,009	,18624	,03469	,00397
	T3		,00001	,997	,18624	,03469	,00000
	T1		1,99307	,158	,18877	,03564	,00095
3	SC3		,00004	,977	,18878	,03564	,00000
	SC4		,15321	,696	,18914	,03577	,00014
	SC5		,72648	,394	,19067	,03635	,00026
	SC2		1,09088	,193	,19043	,03659	,00053
	SC6		,02574	,873	,19043	,03659	,00000
	SC7		,03017	,862	,19045	,03659	,00001
4	NVO		5,45034	,020	,19944	,03978	,00318
5	NOFCHIL		5,20105	,023	,20225	,04091	,00113
6	SV1		,09537	,758	,20230	,04093	,00002
7	RATES		,08307	,772	,20235	,04094	,00002
8	R3		3,90647	,047	,20440	,04178	,00083
	R2		,81000	,367	,20481	,04195	,00017
	R1		,08592	,408	,20517	,04209	,00015
9	AGEF		4,28703	,039	,20742	,04302	,00093
10	FB6		,61350	,434	,20790	,04322	,00020
	FB8		,02701	,869	,20790	,04322	,00000
	FB5		,04420	,834	,20843	,04344	,00022
	FB4		,00020	,989	,20844	,04352	,00007
	FB2		,08083	,776	,20864	,04353	,00002
	FB7		,47097	,493	,21041	,04427	,00074
	FB3		,00002	,990	,21100	,04455	,00027
	FB1		,17151	,679	,21115	,04456	,00000
11	OF3		,26202	,590	,21141	,04469	,00011
	OF2		,00269	,959	,21157	,04476	,00007
	OF1		,97268	,324	,21267	,04497	,00021
12	AGEM		,02230	,881	,21286	,04498	,00000

ATTENDANCE OF ALL CHILDREN

STEP	SCHOOL	(CREATION DATE = 21/03/77) ATTEND IN MANLEY 1671				
		1,54502	,214	,21234	,04507	,00009
13	MB8	,01300	,454	,21283	,04530	,00023
	MB5	,77159	,380	,21350	,04556	,00026
	MB4	1,74156	,187	,21550	,04602	,00046
	MB2	2,95955	,086	,21808	,04668	,00100
	MB3	1,08994	,297	,21868	,04689	,00021
	MB6	2,05543	,104	,21711	,04713	,00024
	MB7	1,01309	,315	,21761	,04735	,00022
	MB1	,00015	,990	,21761	,04736	,00000
14	OM3	,92700	,338	,21810	,04760	,00024
	OM4	,00817	,309	,21875	,04785	,00026
	OM5	,03974	,842	,21885	,04790	,00004
	OM2	,00157	,908	,21885	,04790	,00000
	OM1					

ENROLMENT: All children

DEPENDENT VARIABLE.. ST1

MEAN RESPONSE .65925 STD. DEV. .47399

VARIABLE DF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.79331	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.62933	REGRESSION	62.	1295.69143	20.89825
ADJUSTED R SQUARE	.62681	RESIDUAL	9102.	763.13738	.08384
STD DEVIATION	.28956	COEFF OF VARIABILITY	43.9 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		12024.45589	0.000	.78121	.57944	.57944	.78121
2	FAMPOS		301.28257	.000	.78995	.59283	.01339	.10499
3	FS4		.01272	.910	.78995	.59283	.00000	-.00654
	FS3		.23577	.627	.78996	.59283	.00000	-.00297
	FS6		.90278	.342	.78998	.59288	.00004	-.01278
	FS5		.99446	.319	.78998	.59288	.00000	-.00563
	FS8		.04236	.837	.79001	.59292	.00004	.00400
	FS7		.00738	.795	.79000	.59299	.00007	-.02791
	FS2		2.57302	.109	.79007	.59301	.00002	-.01144
	FS9		514.90330	.000	.78402	.61468	.02167	-.09912
4	I2		94.00021	.000	.78403	.61470	.00002	.02595
	I4		92.83987	.000	.78408	.61478	.00008	-.00694
	I3		204.99346	.000	.78598	.61777	.00298	-.04325
	I1		132.57219	.000	.78945	.62322	.00546	.09012
5	AGEC		76.29389	0.000	.79126	.62618	.00297	-.05002
6	SC3		1.42284	.233	.79127	.62618	.00000	-.00045
	SC4		5.56074	.018	.79135	.62623	.00013	.03276
	SC5		3.93599	.048	.79138	.62628	.00005	.01971
	SC2		3.66577	.056	.79141	.62632	.00005	.03579
	SC8		1.20756	.272	.79145	.62639	.00006	-.03620
	SC6		4.18394	.041	.79155	.62654	.00016	.03449
	SC7		2.28447	.131	.79168	.62664	.00009	.02675
7	NVO		8.91710	.003	.79183	.62700	.00036	-.10056
8	B8		.17139	.679	.79188	.62707	.00007	-.00400
	B2		.52139	.470	.79194	.62716	.00009	.00758
	B6		.47292	.492	.79194	.62717	.00001	.00382
	B7		.00891	.976	.79198	.62723	.00006	-.01735
	B4		.54264	.462	.79200	.62726	.00003	-.00358
	B5		.00022	.988	.79203	.62779	.00053	.00529
	B3		1.09884	.295	.79233	.62779	.00000	-.00470
	B1		1.14151	.286	.79236	.62783	.00005	.01972
9	SV1		8.33826	.004	.79257	.62817	.00034	.03004
10	AGEF		2.91864	.088	.79265	.62829	.00012	.00965
11	FB8		1.39287	.238	.79268	.62833	.00004	.01112
	FB5		.14025	.708	.79268	.62835	.00001	.00774
	FB4		.79262	.374	.79271	.62839	.00005	.01801
	FB3		.55122	.458	.79273	.62843	.00003	.00882
	FB6		.17142	.679	.79273	.62843	.00000	.00710
	FB7		.02268	.880	.79279	.62852	.00009	-.03519
	FB2		.21202	.645	.79280	.62853	.00001	.01641
	FB1		.46889	.494	.79281	.62855	.00002	.04492

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE	SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871					
12	OF3	2.28969	.131	.79284	.62868	.00005	-.01426
	OF2	2.68398	.102	.79287	.62864	.00004	-.00473
	OF1	1.99816	.158	.79292	.62872	.00008	.04414
13	AGEM	.87838	.349	.79294	.62876	.00004	.07543
14	MB8	.08554	.941	.79297	.62881	.00005	-.02134
	MB5	2.05889	.152	.79298	.62881	.00000	.02736
	MB4	1.51659	.218	.79303	.62889	.00008	.01976
	MB2	2.92657	.087	.79303	.62889	.00000	.01709
	MB3	2.76129	.097	.79303	.62889	.00000	-.01262
	MB6	2.37383	.124	.79303	.62889	.00000	.00721
	MB7	1.00753	.316	.79305	.62893	.00004	-.04299
	MB1	3.15876	.076	.79313	.62906	.00013	.03059
15	UM3	.08277	.774	.79316	.62910	.00004	.00774
	UM5	.00490	.944	.79317	.62911	.00001	.00507
	UM4	.08758	.767	.79318	.62914	.00002	.00590
	UM2	.00002	.996	.79322	.62920	.00007	.01570
	UM1	.01229	.434	.79324	.62923	.00002	.04190
16	RATES	1.82130	.177	.79329	.62930	.00007	.04467
17	M2	.42359	.515	.79330	.62932	.00002	-.00970
	M3	.07268	.788	.79331	.62932	.00000	-.01692
	M1	.31082	.574	.79331	.62933	.00001	-.00259

so called pupil ratio - is computed from the number of scholars and the number of school age children in a family group; the former being expressed as a percentage of the latter. This measure quantifies the overall response of the family towards schooling and registers it on a scale ranging from zero to one hundred.

Using these dependent variables two separate regression analyses can be carried out and the results can be used to indicate which of the independent variables make a significant contribution towards explaining the pattern of school enrolment in Hanley in 1871. These results are summarised below:

	ANALYSIS 1	ANALYSIS 2
	Dependent variable;STATUSC 1 Number of cases 9165 children	Dependent variable:PUPIL RATIO Number of cases: 4452 families
Independent Variable	Significance level of independent variable	Significance level of independent variable
Age of child	1%	Not applicable
Position of child in family	1%	Not applicable
Family size	5%	5%
Family structure	1%	1%
Tenancy of Family House	1%	1%
Degree of multiple occupancy	Not significant at 10% level	5%
Failure to pay rates	Not significant at 10% level	5%
Age of father	Not significant at 10% level	5%

It is the modesty of this list which is perhaps most surprising. Where, for example, are the disruptive influences so graphically described in the contemporary accounts? Where are the Irish immigrants who stayed away in droves, the large families so poor that the children could not be sent to school, the working mothers who used the schools as a cheap child minding service and, above all where are the differences between boys and girls? All of these surely existed - if the inspectors and teachers are to be believed; none appear as significant here. Is it possible then that these apparent omissions are as worthy of study as those influences which appear on the list?

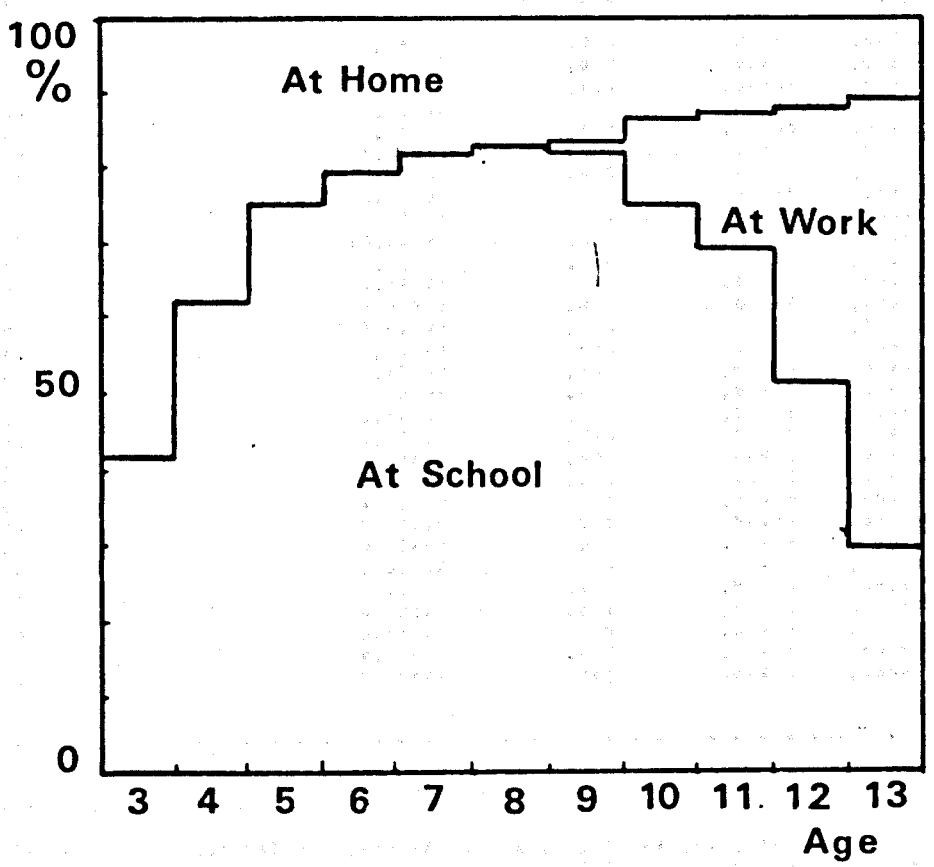
a) AGE OF CHILD

Of all the influences which helped determine whether or not a child was enrolled for school, age was by far the most important. The correlation coefficients indicate a negative trend, suggesting that enrolment tended to decrease among older children - a characteristic frequently mentioned by teachers and inspectors alike. This simple overall trend does, however, conceal a much more complex pattern of enrolment. For example, using nothing more than enrolment means for each age group, it is clear that three major categories existed:

1. A pre-school group, comprising three and four year olds who were excluded from the first School Board bye-laws but who attended school in considerable numbers.

2. School age children i.e. those between the ages of five and thirteen according to the bye-laws. If allowance is made for the fact that many of the children who were at work under the age of thirteen were probably

STATUS OF CHILDREN (by age)



ENROLMENT: School age children (5-12)

DEPENDENT VARIABLE.. ST1

MEAN RESPONSE .74115 STD. DEV. .43804

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.81046	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.65684	REGRESSION	61.	829.84221	13.59660
ADJUSTED R SQUARE	.65363	RESIDUAL	6517.	433.12955	.06646
STD DEVIATION	.25780	COEFF OF VARIABILITY	34.8 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		9954.77483	0.000	.77593	.60200	.60200	.77593
2	FAMPOS		298.34268	.000	.78698	.61933	.01727	.69639
3	FS6		5.00519	.025	.78717	.61963	.00033	.21031
	FS3		.10783	.743	.78717	.61963	.00000	.00187
	FS4		.05892	.417	.78717	.61964	.00001	-.00727
	FS5		1.30062	.254	.78718	.61965	.00001	-.01184
	FS8		.09117	.763	.78718	.61966	.00000	.00071
	FS7		.02597	.872	.78722	.61971	.00005	-.02055
	FS2		.75455	.385	.78722	.61971	.00000	-.01569
	FS9		274.00219	.000	.79083	.63494	.01523	-.09413
4	T2		59.15250	.000	.79083	.63494	.00000	.22448
	T4		58.53182	.000	.79096	.63514	.00020	-.00123
	T3		147.40956	0.000	.79964	.63847	.00333	-.03847
	T1		87.14474	.000	.80200	.64320	.00474	.07849
5	AGEC		171.54897	.000	.80765	.65229	.00909	-.13112
6	SC3		2.43712	.119	.80787	.65263	.00034	.02022
	SC4		4.65507	.031	.80784	.65260	.00027	.04358
	SC5		.58914	.443	.80786	.65263	.00003	.00949
	SC2		1.44077	.229	.80786	.65264	.00001	.03428
	SC8		.50756	.476	.80792	.65273	.00009	-.04330
	SC6		3.31054	.069	.80816	.65312	.00039	.03770
	SC7		1.07181	.301	.80820	.65318	.00006	.02050
7	AVO		10.35596	.001	.80853	.65373	.00055	-.09379
8	B8		2.31585	.128	.80854	.65373	.00001	-.01693
	B6		3.84008	.082	.80854	.65373	.00000	.00846
	B2		2.92998	.087	.80857	.65379	.00005	.00562
	B4		2.81794	.094	.80858	.65381	.00002	.00606
	B7		.21544	.643	.80870	.65399	.00018	-.02305
	B5		1.72583	.189	.80865	.65424	.00026	-.00655
	B3		3.00804	.058	.80885	.65424	.00000	-.05693
	B1		3.77083	.052	.80898	.65444	.00020	.02714
9	SV1		5.17766	.023	.80915	.65472	.00027	.01605
10	FB8		.00726	.436	.80915	.65472	.00000	.02918
	FB4		6.39320	.012	.80922	.65483	.00012	.01737
	FB5		4.08882	.031	.80923	.65485	.00001	.01966
	FB3		6.57119	.011	.80939	.65511	.00026	.04300
	FB6		3.82467	.082	.80939	.65511	.00000	.00083
	FB7		1.61857	.204	.80942	.65516	.00005	-.04478
	FB2		3.13356	.077	.80944	.65519	.00002	.02864
	FB1		4.49323	.034	.80956	.65542	.00024	.04275
11	OF3		3.17290	.075	.80964	.65551	.00009	-.02332
	OF2		4.34756	.037	.80974	.65567	.00016	-.01280
	OF1		1.20479	.201	.80978	.65574	.00007	.04976

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE	SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871						
12	AGEM	.32828	.567	.80979	.65576	.00002	.05346
13	MB8	.25133	.616	.80986	.65587	.00012	-.03849
	MB5	.06560	.415	.80989	.65592	.00005	.03244
	MB4	.48351	.487	.81002	.65613	.00020	.01711
	MB2	2.04549	.153	.81003	.65615	.00002	.02276
	MB3	1.88808	.170	.81004	.65616	.00001	-.01366
	MB6	.91930	.338	.81004	.65616	.00000	.00110
	MB7	.50823	.476	.81006	.65620	.00004	-.04067
	MB1	1.79088	.181	.81012	.65629	.00009	.03714
14	UM3	1.85093	.173	.81022	.65640	.00010	.01165
	UM5	.49828	.480	.81024	.65643	.00003	.00013
	UM4	.00398	.950	.81024	.65643	.00000	-.00697
	UM2	.75877	.384	.81033	.65664	.00015	.02161
	UM1	.00151	.969	.81033	.65664	.00000	.03756
15	RATES	.49282	.483	.81035	.65667	.00003	.01693
16	R3	.14932	.699	.81035	.65667	.00001	-.03342
	R2	.97166	.325	.81038	.65672	.00005	-.00650
	R1	2.22319	.136	.81046	.65684	.00012	.00396

half timers it is clear that among this age group enrolment was remarkably high and remarkably consistent.

3. Thirteen year olds. From the age of ten onwards the proportion of children at work becomes increasingly significant. If, as seems reasonable, we assume that the majority of children under the age of thirteen who were at work also continued to attend school in a half time capacity, it is possible that this had little effect on enrolment rates. At thirteen, however, all children passed beyond the jurisdiction of the education clauses of the Factory Acts and it is in this age group that a significantly different pattern of school enrolment might be expected.

Each of these categories is worthy of further attention.

1. School age children

Of the population under study (i.e. children between the ages of 3 and 14) 71.6% came within the five to thirteen age ranges stipulated by the Hanley School Board in its original bye-laws. Within this age group pressures to attend school were greatest, potential escape routes were least obvious and, not unnaturally, rates of enrolment were comparatively high. In fact, the average enrolment rate for this group reached 74.1% and, as can be seen from page 189 , if allowance is made for half time schooling among children between the ages of ten and thirteen, this figure probably exceeded 80%. Such rates of enrolment would appear to imply a degree of schooling which belies most contemporary evidence. For this reason the figures should be treated with caution and always with the certainty that school enrolment is and was not synonymous with school attendance. At the same time, it must be acknowledged that these figures suggest that the

voluntary system had by 1871 achieved a considerable degree of success in persuading parents to send children to school.

Furthermore, regression analysis suggests that enrolment was widespread and not restricted to certain limited socio-economic groups within the town. Indeed the idea of schooling appears to have been accepted to a remarkable degree throughout the district - a conclusion which invites comparisons with the picture presented by the inspectorate of the Potteries as an educational disaster area requiring immediate and extensive relief. Of the independent variables under study remarkably few seem to have exerted any significant influence on school enrolment among this age group, and, not unnaturally, these bear a striking resemblance to the influences at work on the population as a whole.

a) With age being used as a control, the major influence is now the position of the child in the family, as determined by birth order. Here the general trend is positive, indicating that school enrolment was lowest among first born children and tended to increase as the family grew. This trend - the probable product of easing financial constraints as older children found employment - will be studied in detail later.

b) The structure of the individual family group remains important with highly significant differences occurring between 'normal' families and those which in any way deviate from normality. Among the latter enrolment plunges to a rate of 67.4%, significantly lower than the rate not only for normal families but also for the population

School Enrolment: School Age Children		
	'Normal' Families	Non-normal Families
Mean	75.7%	67.4%
Standard Deviation	23.8	32.0
Number of Cases	5310	1267
Overall Mean 74.1%	Significant at 1% level	

as a whole. Furthermore, a large proportion of this difference can be explained by referring to the behaviour of one group of 'non-normal' families, namely those for whom there is no record of either a father or mother living with the children. In these circumstances enrolment could show a disastrous decline.

c) Closely related to this is the influence of householding which indicates that enrolment is significantly lower among families (including children separated from both parents) who are forced into lodgings, and particularly

	TENANTS	OWNER/ OCCUPIER	LODGING WITH KIN	LODGING OUTSIDE
MEAN	75.5%	80.4%	67.4%	60.9%
STANDARD DEVIATION	24.2	19.1	38.7	31.1
NUMBER OF CASES	5643	183	392	260

among those who are forced to lodge outside the kinship group. Since children from non-normal families make up a large proportion of this group there is an obvious danger that any association may be spurious. Multiple regression analysis indicates that both sets of variables

ENROLMENT: Children age 3 and 4

MEAN RESPONSE .51176 STD. DEV. .50000

VARIABLE DF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.83434	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.69612	REGRESSION	61.	325.25439	5.33204
ADJUSTED R SQUARE	.68586	RESIDUAL	1888.	141.98678	.07553
STD DEVIATION	.26024	COEFF OF VARIABILITY	50.8 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		3375.06203	0.000	.80232	.64372	.64372	.80232
2	PAMPOS		.00410	.437	.80239	.64383	.00012	.13163
3	FS6		.00063	.926	.80239	.64384	.00000	-.02366
	FS5		.10364	.686	.80240	.64384	.00000	-.01445
	FS4		1.12400	.289	.80251	.64402	.00019	-.01431
	FS8		.10871	.742	.80255	.64409	.00007	-.00173
	FS3		.14098	.702	.80256	.64411	.00002	-.02004
	FS7		.42153	.516	.80257	.64412	.00001	-.03444
	FS2		1.61871	.204	.80263	.64454	.00042	.04721
	FS9		158.78004	0.000	.82007	.67251	.02797	-.07280
4	T2		1.94891	.163	.82012	.67260	.00009	-.00320
	T4		4.34540	.037	.82014	.67262	.00002	-.00510
	T3		2.13079	.145	.82032	.67292	.00030	-.00259
	T1		4.94080	.026	.82085	.67379	.00087	.11629
5	AGEC		78.45620	.000	.82687	.68363	.01324	.18452
6	SC2		.20879	.804	.82888	.68704	.00001	-.00257
	SC4		.03301	.856	.82920	.68756	.00054	-.04140
	SC5		1.12112	.290	.82921	.68756	.00001	-.01834
	SC3		.00508	.943	.82955	.68815	.00057	-.00325
	SC8		.74452	.388	.82959	.68823	.00008	-.03459
	SC6		.71059	.399	.82982	.68861	.00038	.00305
	SC7		1.75034	.186	.83000	.68890	.00029	.08351
7	NVO		.00766	.930	.83000	.68890	.00000	-.13598
8	B8		1.19147	.275	.83020	.68923	.00033	-.01431
	B7		2.24713	.134	.83052	.68977	.00054	-.00677
	B2		.02235	.881	.83059	.68988	.00011	-.00773
	B4		.16567	.684	.83077	.69018	.00030	-.05862
	B5		.00232	.962	.83077	.69018	.00000	.01076
	B6		.00045	.797	.83083	.69027	.00009	.00449
	B3		.15581	.693	.83105	.69064	.00037	-.03349
	B1		.00022	.988	.83105	.69064	.00000	.03834
9	SV1		2.47050	.116	.83130	.69106	.00042	.07034
10	FB8		.79827	.372	.83108	.69109	.00003	-.03917
	FB5		4.45774	.035	.83175	.69181	.00013	-.04377
	FB4		5.24336	.022	.83198	.69220	.00038	-.03277
	FB3		5.39373	.020	.83243	.69294	.00074	-.02408
	FB7		3.97648	.046	.83258	.69318	.00024	-.03413
	FB6		2.02029	.155	.83258	.69318	.00000	.02396
	FB2		2.77275	.096	.83262	.69325	.00006	.01345
	FB1		2.39124	.122	.83280	.69365	.00040	.00203
11	OF3		.05016	.823	.83286	.69365	.00000	.00451
	OF2		.00209	.964	.83286	.69366	.00001	.03826
	OF1		.11156	.738	.83287	.69368	.00002	.05013

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE	SCHOOL (CREATION DATE = 21/03/77)	ATTEND IN MANLEY 1871				
12	AGEM	2.59865	.107	.83313	.69411	.00044	.06401
13	MB8	.55035	.458	.83317	.69417	.00005	.01405
	MB5	.12768	.721	.83317	.69418	.00001	.00746
	MB4	.06269	.802	.83321	.69425	.00007	-.02425
	MB2	.21628	.642	.83322	.69425	.00001	-.00117
	MB3	.00286	.957	.83368	.69502	.00076	-.03416
	MB6	.19486	.659	.83369	.69504	.00002	.01753
	MB7	.41820	.518	.83369	.69504	.00000	-.03434
	MB1	.48763	.485	.83374	.69512	.00008	.00647
14	OM3	.02169	.883	.83375	.69513	.00001	.01752
	OM4	3.00128	.084	.83419	.69587	.00074	.03966
	OM5	.00639	.936	.83419	.69588	.00001	.00834
	OM2	.00007	.993	.83420	.69589	.00001	.03836
	OM1	.02075	.885	.83420	.69589	.00000	-.01459
15	RATES	.19808	.663	.83422	.69592	.00003	-.07953
16	R2	.65847	.417	.83429	.69603	.00011	.00541
	R3	.38396	.562	.83432	.69608	.00005	.01151
	R1	.19041	.658	.83434	.69612	.00003	.02449

make a contribution which is significant at the one percent level.

d) Support for such a hypothesis can be drawn from the relationship which appears to exist between school enrolment and the degree of multiple occupancy in any household.[1] The overall trend of this relationship is negative, indicating that enrolment decreases as the degree of multiple occupancy increases. In fact when a single child is taken into another family group - and this accounts for some 40% of the children living in multiple occupancy - enrolment is little affected, but, if entire families are either forced to take up lodgings or agree to take in other families, a sharp decline sets in.

These patterns are, of course, very similar to those seen among the population as a whole. Significant differences do occur, however, among pre-school children and among thirteen year olds, both of whom were excluded from the educational by-laws even though they attended school in large numbers.

2. Pre-School Children (3 and 4 year olds)

Although school enrolment among this age group was considerable - approaching fifty percent - contemporary attitudes towards the so called 'babies classes' were ambivalent to say the least. Factory Inspector, Robert Baker, for example, records, with obvious approval, the opening of a new school in Longton which he hoped would, by providing a baby's class, "ease the lot of children

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1. This variable (NVO) is obtained by subtracting family size from household size (i.e. HSEHLD - FAMSIZE).

left in charge of younger children for ten to twelve hours each day as a result of mothers working".[1] At the same time, however, he was obviously conscious of the potential dangers to the physical and moral well being of the children in the district presented by the large scale employment of women in the pottery industry - dangers which such schools could only increase.[2] But confronted with this choice of evils, he would undoubtedly have come down in favour of schooling for children under the age of five and, in this he would have gained the support of most of the industrialists in North Staffordshire who were obviously highly dependent upon female labour. The dilemma of the educational establishment was even more intense. Some of the inspectorate, for example, shared Robert Baker's view that schools should try to relieve the social problems caused by working mothers. This point of view was admirably expressed by the Rev. F. Wilkinson in his report on schools in North Staffordshire. "In a place like Longton where female labour is very valuable, and where many an infant would be completely neglected or left for hours in charge of a sister who should be at school herself, and who, so far from being competent to take charge of another is hardly fit to be trusted herself, I consider this adjunct to the infant's school(a babies room) a very useful institution".[3]

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1. Reports of the Factory Inspectors 31 October, 1864. 1865 [3473] xx. 429. page 533.
2. Ibid page 523.
3. Report of the Committee of Council in Education 1869-70. 1870 [C165] xxii. 1. page 267.

Others were more inclined towards the opinions of Matthew Arnold when he said that "more good schools are clogged and impeded in their operations by a mass of children under eight years of age at the bottom of them, than from any other cause". [1] In fact Mr Sandford in his report on Church of England Schools in the counties of Worcester and Staffordshire went so far as to state that infant schools had received too much encouragement since it was obvious that "mothers were only too glad to have their children taken care of for too low a fee". [2] His solution was equally forthright - children under the age of four should not be taken into account when calculating the grant. [3] The acceptance of this recommendation would have gone a considerable way towards resolving one of the major dilemmas facing a large number of teachers. For, like the Inspectorate, many of them felt that the work of the school could be adversely affected by the influx of a number of small children, each of whom required a great deal of attention. At the same time, however,

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1. Report of 1862 quoted in Arnold, M., Reports on Elementary Schools: 1852 - 1882. Eyre and Spottiswoode Ltd., London. 1910.
2. Report of the Committee of Council in Education 1868. 1868-69 [4051] Vol xx. page 201.
3. Four years earlier Mr Sandford was recommending the raising of fees at the Shelton schools in order to deter four year old children from attending. (There were 37 in the schools at the time).
   Report of the Committee of Council in Education 1864. 1865 [3533] xlii. page 135.

they had to balance this likelihood against the knowledge that the attendance of any child, almost regardless of age, resulted in an increased income for the school .... and, not infrequently for the teacher. In some areas this choice of evils caused great soul searching; in North Staffordshire in the 1860's the demands of the pottery industry, allied to the poverty of the educational agencies in the area meant that the choice was largely pre-determined and babies' classes proliferated.

This ambivalence was shared by the first Hanley School Board which, having decided, largely as a result of initial fears about shortages of accommodation, to exclude children under the age of five from the bye-laws, then changed its mind and recommended attendance where places were available. [1] At virtually the same time the government was in the process of rationalising the situation and in the New Code of 1871, which gave instructions concerning the administration of public elementary schools. Article 17 stated that children "if admitted under the age of three, must be registered separately (for the purposes of assessing accommodation) and will not be included in the calculation of the grant"; and Article 19 continues by stating that "infants of three and four years of age will be taken into account". [2] In short, the floodgates were once again officially opened and the potential school population reverted to and, in fact, exceeded the magic one sixth of the total population. [3]

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1. See page 46.
2. Report of the Committee of Council in Education. 1870-71. 1871 [C406] xxii. 1. page cxxxii.
3. See page 45 ff.

Given such a dichotomy of views what might be expected to emerge from any analysis of this group of children in Hanley? Did the babies' classes do no more than provide a cheap alternative to paid child minders? Were they frequented largely by the offspring of working mothers? Were they likely to form a sink in to which the children of the lowest classes were sent simply to relieve hard pressed mothers? Or did they, as claimed by the Hanley School Board, provide an important basis for future education whereby children "may be trained in habits of cleanliness, order and punctuality and early acquire a love of school"? [1] Documentary evidence can be found to support any one of these statements and a case could be made for and against the continued encouragement of babies' classes. Against this background, the actual behaviour of the population of Hanley, as reflected in the census returns, assumes much greater importance.

The census does confirm that the enrolment of very young children at school was indeed widespread by 1871. No fewer than 956 children aged three or four were recorded as scholars. This represented 51.2% of that entire age group. It is important to remember, however, that this figure included a large number of children who attended schools other than public elementary schools and that this border line between a dames' school and a child minding institution was extremely vague. It is interesting, therefore, to compare the figure with the findings of the School Board when it carried out its own census in the Spring of the same year. This suggested that 703 children

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1. Bye-laws drawn up by the Hanley School Board on 21 June, 1871.

aged three and four were attending school in the Borough, a discrepancy of 253. Such a discrepancy could perhaps be explained solely in terms of the differences in definition between 'enrolment' and 'attendance' but it is possible that it also reflects the extent of non-public schooling. Whichever figure is taken, however, it is clear that contemporary sources were correct in suggesting that the enrolment of very young children was taking place on a scale large enough to cause serious problems in the schools, particularly if those children were drawn primarily from the most deprived families. And there is some evidence in the census to support the remainder of this thesis.

For example, social class, which appears to have been of little significance among children of school age and among the population as a whole, has a striking effect on the pattern of enrolment among pre-school children. As the table shows, not only does the difference in enrolment rates between social groups increase but also, much more significantly, the actual trend is reversed with schooling declining as social standing improves.

	% ENROLMENT	
	Social Class 1-4	Social Class 5-8
Pre-school Children (3&4)	38.6	54.0
School age Children (5-12)	82.4	73.8
Population	64.5	66.4

ENROLMENT (by social class)

Since the influence of social class was remarkably uniform among other groups such a striking deviation needs to be explained. If contemporary sources are to be believed, it can be explained simply in terms of the lower classes finding a cheap and effective child minding service which allowed mothers to

work and encouraged the disintegration of a stable family life. There is, however, little in the census to confirm this argument. Indeed the representation in the babies' classes of families with working mothers is little greater than might be expected from their representation in the population as a whole; and, similarly, enrolment among broken families showed a pattern of decline little different from that already described. Add to this the fact that other indices of social standing such as the rateable value of the house and the degree of multiple occupancy also display patterns which do not differ significantly from those seen in the population as a whole. As a result it becomes difficult to explain this major deviation solely in those terms. An examination of significant influencies suggests a second hypothesis which may go towards resolving the problem. It is clear, for example, that there is a significant difference in

ENROLMENT AMONG FAMILIES (by family position and family size)

	FIRST BORN	FOURTH CHILD	SINGLE CHILD FAMILY	FAMILY OF FOUR CHILDREN
Pre-school Children (3&4)	40.9%	58.6%	33.3%	57.0 %
School age Children (5-12)	73.1%	76.0%	71.2%	75.8%

enrolment rates between first born children and those born later and that this difference is much greater among very young children than among children of school age. Why should this be so? Of the possible explanations, the most likely

centre on the more protective attitude adopted by parents towards first born and there is strong contemporary evidence that such attitudes were particularly well developed at a time when the danger from epidemic diseases in the schools was high and when skin and scalp diseases resulting from contact with dirty children were endemic. The extent of this danger is difficult to appreciate today when most epidemic diseases can be controlled but in 1871 child mortality was still high and childhood illnesses such as chicken pox, scarlet fever and, above all, measles could decimate infant classes and, with resulting complications, could cause the deaths of many children.[1] These risks were obviously greatest among children in their first year at school and it is not surprising that many parents withheld their children for as long as possible. Once the break was made, however, and one child attended school, the possibility of protection disappeared since disease could be brought into the home from school. It is not surprising, therefore, that enrolment among later children increased. Support for this argument can be drawn from the fact that the divergence in enrolment is even greater between single child families and families with more than one child. Furthermore, there is an obvious relationship between this pattern of behaviour and that seen in relationship to social class since it would not be unreasonable to suppose that protection of young children would be greatest among members of the higher social groupings.

3. Thirteen Year Olds.

For a child in Hanley in 1871 his thirteenth birthday was an important event. It marked a change of

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1. See page 286.

ENROLMENT: Children age 13

MEAN RESPONSE .29190 STD. DEV. .45495

VARIABLE AGEC IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

		ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
MULTIPLE R	.70806	REGRESSION	68.	74,19710	1,23662
R SQUARE	.50136	RESIDUAL	655.	73,79580	.11267
ADJUSTED R SQUARE	.45568	COEFF OF VARIABILITY	115.8 PCT		
STD DEVIATION	.33566				

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		334,57391	.000	.56467	.31908	.31908	.56467
2	FAMPOS		50,01185	.000	.60308	.36371	.04463	.09419
3	FS5		.15613	.693	.60374	.36451	.00080	.04112
	FS3		.04534	.831	.60417	.36502	.00052	-.02236
	FS4		.03933	.843	.60423	.36509	.00007	-.02461
	FS6		.03324	.855	.60424	.36511	.00002	-.03398
	FS8		.00107	.974	.60430	.36518	.00007	-.05384
	FS7		.01211	.912	.60442	.36532	.00014	-.05989
	FS2		3,70426	.055	.60622	.36758	.00226	-.05474
	FS9		55,68881	.000	.64328	.41380	.04622	-.16141
4	T2		10,80951	.002	.64727	.41896	.00516	.16527
	T4		2,44170	.119	.64727	.41896	.00000	-.02392
	T3		17,85388	.000	.65060	.42334	.00437	-.02498
	T1		3,71407	.054	.65829	.43334	.00999	.06302
5	SC3		4,28956	.039	.66132	.43735	.00401	.09313
	SC4		5,30424	.022	.66748	.44542	.00807	.15847
	SC2		5,85527	.025	.67115	.45044	.00502	.14460
	SC5		6,52752	.011	.68132	.46426	.01382	.15363
	SC8		.24954	.618	.68155	.46451	.00031	.00662
	SC6		.48671	.486	.68382	.46761	.00310	.00874
	SC7		.00276	.958	.68382	.46761	.00000	-.10858
6	NVO		.86490	.353	.68434	.46827	.00066	-.04854
7	B6		.43734	.509	.68442	.46843	.00016	.01971
	B2		.29797	.585	.68452	.46856	.00013	.01173
	B7		.30334	.547	.68539	.46976	.00120	-.02532
	B8		3,73728	.054	.68736	.47247	.00271	.05825
	B5		1,78366	.182	.69025	.47645	.00398	.06550
	B3		.21834	.640	.69029	.47651	.00006	-.02579
	B4		.74941	.387	.69133	.47794	.00144	-.04120
	B1		.11731	.732	.69140	.47803	.00009	-.04284
8	SV1		.37170	.542	.69168	.47841	.00038	-.01811
9	AGEP		1,13110	.288	.69223	.47918	.00077	.10438
10	F65		.25708	.612	.69223	.47918	.00000	.03626
	F63		.50441	.478	.69267	.47979	.00061	.04277
	F66		.36135	.548	.69272	.47987	.00008	-.01859
	F64		.00155	.969	.69416	.48189	.00202	.11576
	F68		.62307	.430	.69496	.48299	.00110	.05347
	F62		.23110	.631	.69512	.48322	.00022	.03706
	F67		.16972	.680	.69522	.48333	.00013	.02189
	F61		.58837	.476	.69556	.48372	.00039	.04614
11	OF3		2,86840	.091	.69646	.48497	.00126	-.00120
	OF2		1,59195	.207	.69641	.48499	.00002	-.00034
	OF1		5,49582	.019	.69946	.48917	.00418	-.04068

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

12	M64	1,18538	.293	.69983	.48976	.00000	.00052
	M68	.37872	.543	.69989	.48985	.00009	.00591
	M65	2,83236	.154	.70191	.49267	.00282	.00556
	M63	1,21897	.272	.70390	.49548	.00281	.00945
	M62	.08225	.774	.70395	.49555	.00007	.00457
	M66	.17597	.675	.70398	.49558	.00003	.00472
	M67	.22229	.637	.70495	.49696	.00138	-.02121
	M61	.29765	.586	.70511	.49718	.00022	-.01423
13	OM4	.02246	.881	.70515	.49724	.00006	.01020
	OM3	.04742	.421	.70526	.49739	.00015	-.02614
	OM5	.52733	.468	.70537	.49754	.00015	-.01628
	OM2	.23595	.627	.70538	.49756	.00001	-.00476
	OM1	.45371	.501	.70562	.49790	.00035	.15959
14	RATES	1,98394	.160	.70665	.49935	.00145	.19411
15	R2	.14284	.706	.70671	.49944	.00009	-.01729
	R3	.59398	.441	.70697	.49981	.00037	-.02532
	R1	2,02992	.155	.70806	.50136	.00155	-.00053

status from 'child' to 'young person' - a change which signified the curtailment of so many government restrictions on employment and marked the end of all legal requirement to attend school. In such circumstances it is easy to accept the evidence contained in the inspectorate reports and in school log books of children deserting the classroom at this, the earliest opportunity, and of them pouring into employment of varying degrees of unsuitability. The reality was, however, slightly less dramatic since the census shows that the exodus was far from complete and that almost 30% of thirteen year olds were still recorded as scholars. To some extent this level of enrolment can be explained in terms of inertia. Not all children were able to find employment immediately on attaining their thirteenth birthday and it would not be unreasonable to expect some of them to remain at school until the future was more certain. At the same time, however, it would also appear reasonable to assume that the parents of a considerable number of the 209 thirteen year old pupils made a positive decision to keep their children at school. This decision would not have been easy because the range of options was so much greater at thirteen and it is likely, therefore, that the pattern of influences at work will be distinctive.

In fact, at first sight the pattern is remarkable mainly for its resemblance to that for the population as a whole - a tribute, no doubt, to the strength of the major influences such as birth order, the structure of the family and the nature of householding. A closer examination does, however, reveal a number of interesting deviations. The first of these is simply one of degree

with family position (as indicated by birth order) making an unusually high contribution towards explaining the variance. Such a pattern is not entirely unexpected since it is possible that enrolment increased as older children, by finding employment, made their contribution towards easing the financial problems of the family group and that it would be the thirteen year olds who gained the maximum benefit. The second is perhaps more interesting for it is among this age group that striking differences occur in patterns of behaviour between boys and girls. This is unusual since one of the most significant findings to emerge from this analysis is the remarkable uniformity of schooling between the sexes. [1] At thirteen, however, this uniformity had broken down and significant differences were occurring

	BOYS	GIRLS	BOYS AND GIRLS
AT SCHOOL	26.4%	31.9%	29.2%
AT WORK	64.0%	49.1%	56.4%
AT HOME	7.3%	16.7%	12.1%

STATUS OF THIRTEEN YEAR OLD CHILDREN (by sex)

(the figures do not add up to 100% because information is not available for all children)

in the decisions taken relative to boys and girls. For example, boys were more likely to leave school than girls and when they did they were more likely to start work.

1. In the population as a whole school enrolment rates were 65.94% for girls and 65.91%for boys. While among school age children the comparable figures were 73% and 71%. These differences are not statistically significant.

Girls, on the other hand, showed a greater tendency to stay at home. Here at least is some confirmation of trends described so vividly by so many contempory reports.

"The poor attendance of girls who can find no employment proves that it is the indifference of parents or the employment of girls in household drudgery or in many districts in coal picking, that keeps many from school". [1]

"There has been a very great demand for my first class by employers of labour during the last quarter. Nine have left; one to Sir James Duke of Burslem, three to Meighs, two to Ridgways, two to Stubbs and two to other potters. Six others left for other industries - one showman, one farmer, one miner and two porters". [2]

Trends so strong that they found repeated expression in the pages of inspectorate reports and log books everywhere; or possibly so dramatic that few teachers could resist the temptation to include them even if objectivity suffered in the process. That there was a strong element of the latter cannot be disputed but the census does suggest that the divergence between the sexes was very real.

This pattern of behaviour, so clearly seen among thirteen year olds, is merely the culmination of a series of trends which begin to emerge from the age of ten onwards when escape from school became comparatively easy and when employment, even in industries regulated by factory legislation became possible. It was at this point that the decline in full time schooling set in [3] and the decision

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1. Reports of the Committee of Council in Education Her Majesty's Inspectors of Schools: 1868 1868-69 [4051] vol. xx. page 210.
2. Log Book: Northwood Boys School 26 November, 1862.
3. See Page 142 ff.

making process was widened to include a work option in addition to the existing choice between school and home.

b) THE FAMILY

Since all decisions about schooling were taken within the household group, and the majority within the family group, it is reasonable to expect both to have a major effect on the decision making process. This process was itself a complex one, open to a variety of influences, the most important of which was undoubtedly the assessment of parents and guardians of the rewards which might be obtained from educating their children. Obviously such rewards were far from certain and could only lie in the relatively distant future, and it is hardly surprising, therefore, that education, occupied a relatively lowly position among the priorities of many families, particularly those where the parents had themselves managed with little or no formal schooling. [1]

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1. Anderson, M., Family Structure in Nineteenth Century Lancashire. Cambridge University Press. 1971.
   In this work the author summarises the premises which underlie the concept of 'power' (i.e. the ability of an individual or 'actor' to attain his goals) and relates them to Victorian Society. They are that:
   1. All actors have a number of goals, the attainment of which would maximise that satisfaction or psychological rewards.
   2. All actors are faced with an environment which presents problems which must be resolved if the goals are to be attained.
   3. Possible solutions to these problems are limited.

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Unfortunately it is in this area that the census offers least help and the difficult problem of parental attitude can be approached only obliquely. At the same time, however, these attitudes were formed and the decisions made in a physical, social and economic environment which is described and which can to some extent be quantified. As a result, it becomes possible to measure the significance of a number of variables which were allocated a considerable degree of importance by contemporary commentators. These include the size of the family; the age and sex of the children; their birth order; any deviation from the 'normal' family group; the age employment and birthplace of the parents; the social class of the family; and its relationship to broader kinship groups.

(Footnote continued from overleaf)

4. All actors will probably require assistance to solve them.
5. Sources of assistance are limited.
6. Choice of assistance will be made to maximise long term goal attainment and it will take place within the following paramenters:
   a) How much psychological profit does the transaction offer immediately?
   b) When will reciprocation be expected - will it be immediate or long term?
   c) How certain is it that reciprocation will take place?

Analysis of the census data confirms the significance of many of these factors, but, there are several omissions and it is interesting to speculate as to why parental occupation, social class and patterns of family migration - all matters of considerable moment to contemporary observers - do not emerge as significant. This speculation will be carried further but it is only proper to concentrate in the first place on those aspects of the family which do make an important contribution towards explaining the complex pattern of school enrolment in Hanley; namely, the size of the family, the position of individual children within the family group, the age of the parents, and the degree and nature of the breakdown of the family.

1. Number of Children in the Family Group.

Our twentieth century view of the manufacturing districts of mid-Victorian England is conditioned by a number of striking images which have been generated by the reports of contemporary writers and artists and which have made a lasting impression. Of these, one of the most powerful is undoubtedly that so graphically portrayed by the artist Doré [1] of squalid terraced streets teeming with human life; of families so large that children almost burst from their doors of grotesquely overcrowded houses; of parents so impoverished by the

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1. Louis Auguste Gustave Dore (1832-1883) - French artist who produced striking prints of life in the slums of London.

attempt to feed and clothe their offspring that education, religion and even morality counted for nothing. This was certainly the view of Mr. A. W. Bellamy, Her Majesty's Inspector of schools when he bemoaned the apparent failure of all attempts to extend schooling among the children of the working classes. "What improvement can reasonably be expected from school teaching and training in families where father and mother and four, five or seven children from eight to twenty years of age live in the same room?". [1] What indeed? And if, as was frequently suggested, many families lived on the threshold of dire poverty into which they could be driven simply by the birth of another child,[2]

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1. Report of the Committee of Council in Education 1864. 1865 [3533] xlii. 1. page 22.
2. Detailed contemporary statistics relating to family budgets are rare but B. S. Rowntree, writing some thirty years later produced figures which demonstrated effects of family size on the income required to maintain a family above the poverty line.

Family comprising:	Food	Rent	Sundries	Total
	s d	s d	s d	s d
One man and one woman	6 -0	2 -6	3 -2	11 -8
One man and one woman and one child	8 -3	2 -6	3 -9	14 -6
two children	10 -6	4 -0	4 -4	18 -10
three children	12 -9	4 -0	4 -11	21 -8
four children	15 -0	5 -6	5 -6	26 -0

Rowntree, B. S., Poverty - A Study of Town Life. McMillan, London. 1901.

it is not unreasonable to expect a close relationship to exist between the size of the family and school enrolment.

Regression analysis confirms the existence of such a relationship but it is neither as strong nor as simple as might be expected. In fact the general trend in enrolment is the reverse of what might be expected, with schooling, as measured by the pupil ratio within the family, improving as family size increases. This emerges quite clearly from a simple frequency count which indicates that enrolment among small families is unusually low and that it builds up rapidly to peak among families with five children, at which point a gradual decline sets in. This overall pattern gives support to the argument that most family decisions, including those relating to schooling reflected the financial constraints within which the family lived - constraints which changed with the changing situation of the family itself. Anderson, for example, in his study of family structure in nineteenth century Preston suggests that there were six stages in this family life cycle. [1]

Stage 1 - wife under 45, no children at home.

Stage 2 - wife under 45, one child under one year old at home.

Stage 3 - several children at home, none in employment.

Stage 4 - several children at home and some (but under half) in employment.

Stage 5 - several children at home and half (or over half) in employment.

Stage 6 - wife aged 45 or over; no children (or one aged 20+) at home.

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1. Anderson, M., Family Structure in Nineteenth Century Lancashire. Cambridge University Press. 1971. Chapter 3.

NUMBER OF CHILDREN IN FAMILY	1	2	3	4	5	6	7	8	9	10	11	TOTAL
NUMBER OF FAMILIES	467	842	900	760	490	295	117	70	24	1	1	4323
NUMBER OF FAMILIES (AS A PERCENTAGE OF TOTAL)	10.8	19.5	20.8	17.6	11.3	6.8	2.7	1.6	0.6	0	0	91.8 [2]
MEAN PUPIL RATIO	58.1	61.3	64.4	67.6	69.0	67.3	68.1	68.1	64.3	0	00	66.4

SCHOOL ENROLMENT AND FAMILY SIZE: HANLEY 1871

2. This figure is not 100% because the necessary information about the status of children was not available for all families.

And, not unnaturally he goes on to suggest that financial pressures on the family would be greatest during stage three and that they would ease as soon as the older children found work and were able to contribute to the family income. Applying this thesis to the census data for Hanley, it is obvious that the likelihood of there being children in employment increases markedly as family size increases and that with the easing of financial constraints school fees for younger children would be more readily available. Further strength is added to this argument by the fact that, although families were often large, only thirteen percent of them included more than three children of school age and in more than one third of the cases there was only one potential scholar. This meant that school fees, which ranged from two to six pence per scholar per week, were less significant than might first appear and that the availability of further income, however small, could make a considerable difference.

It is, however, difficult to explain the behaviour of single child families solely in these terms. There were of course financial pressures, particularly if the mother stopped working as soon as the child was born, but such pressures must have been less severe than those faced by the parents of large families and were unlikely to account for the low rates of enrolment among the entire group. Of more significance perhaps is the proportion of young children which was inevitably high among single child families at a time when families

were generally large.[1] And among young children, as we have already seen, enrolment rates tended to be low because the pressures to attend school were less marked and because many parents tried to withhold an only child from schools in which infection was rife.

There is also one final, highly significant point which emerges from the analysis. The overall trend, which suggests that enrolment tended to increase with family size, appears to relate only to the most stable elements of the population ie. normal families, owning or renting their own house, and with the mother not working. Among other groups, particularly where there has been some breakdown of the normal family structure, where the mother goes out to work and where the family is forced to take up lodgings, the trend is reversed and enrolment does decline among larger families. Here, albeit in a tenuous form, is a degree of support for one of the assumptions which underlay so many contemporary statements about schooling in Victorian England. This was that the most serious problems were particularly prevalent among certain clearly defined groups and that these groups were drawn from the lowest strata of society. Indeed universal condemnation was meted out to the least fortunate individuals - the so called 'Street Arabs' who were not only placed beyond the educational pale but were also thought to be almost beyond redemption. Not

1. 28% of potential scholars in single child families were under the age of five, compared with a figure of 20% for the school age population as a whole.

everyone may have shared the opinion of the Reverend James M^{c}Cosh that there was "a sunken population which cannot be swayed or reached by the motives which influences the better portions of humanity", [1] but even Alderman C. F. Wedgwood, who proposed the establishment of a school board in Hanley, appreciated the difficulties of introducing a system of compulsory education in the town.

"We must be able by the Act (of 1870) to compel the children in the street whose fathers and mothers hardly own them, to go to school; and, although it may become invidious to enforce such attendance, it must be one of the first duties of the Board". [2]

The implications of such statements are obvious and it is surprising, therefore, that regression analysis suggests that the variable, social class does not make a significant contribution towards explaining the variance in the pattern of school enrolment.

2. Position in the family according to birth order.

Closely related to family size and playing an extremely important part in determining the pattern of school enrolment in the town is the position of the child in the family as indicated by birth order. This variable is significant at the one percent level and the relationship

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1. McCosh, Rev. J. "On compulsory Education" Transactions of the National Association for the Promotion of Social Sciences 1867. Belfast.
2. Staffordshire Sentinel 3 December, 1870.

is strongly positive, demonstrating that enrolment improved as position, by birth order, increased. This trend closely resembles that already seen for family size with low levels of enrolment among first born children, a gradual improvement among succeeding children until a peak is reached with the sixth child. Percentage enrolment figures such as these are much more dramatic than the overall trend since the highest figures are achieved among relatively small groups and it is the behaviour of the very large group of first born children which is perhaps most significant.

The low enrolment figure for first born children clearly mirrors that for single child families and it is possible that the most important cause was once again the protective instinct of the parents. Support for this argument can be drawn from the pattern of schooling among different age groups which suggests that enrolment among first born is lower in the age range three to seven and that from eleven onwards it is higher than for the population as a whole. Such a pattern can most easily be explained in terms of parents withholding young children from school as a protection against disease and of them relaxing their watchfulness as a degree of immunity was achieved.

The improvement in enrolment among later children can also be attributed to the removal of financial constraints in a similar manner to that which produced higher rates of schooling in large families. For it would be the first born who were likely to be most seriously affected by any adverse financial circumstances and it would be when they started work that the constraints would be eased,

POSITION IN THE FAMILY	1	2	3	4	5	6	7	8	9	10	TOTAL
NUMBER OF CHILDREN	2502	2208	1776	1210	661	292	114	36	9	2	9183
MEAN ENROLMENT (as a %)	63.9	66.0	66.4	71.4	71.4	77.1	74.6	66.7	88.9	50	65.9

ENROLMENT AND BIRTH ORDER : HANLEY 1871

allowing later children to attend school. In the light of such pressures a difference of more than ten percent between first born and seventh born children does not appear unreasonable.

One final point; in many contemporary accounts it is suggested, either directly or by implication, that birth position gives rise to striking differences in behaviour between boys and girls, and that it was the schooling of first born girls which was apparently most at risk. Indeed, if the school log books are to be believed it was a miracle that any schooling took place for, according to the teachers, the oldest girl often became a surrogate mother, running errands, cooking, carrying meals to the father at work and, most important of all, looking after younger children. So strong is this image of the little drudge that it comes as a surprise to discover that there is no significant difference in school enrolment between the sexes and both follow almost exactly the overall trend already described. Here once again it would seem that we have evidence of the divide which lay between school enrolment and attendance.

3. Parental Occupation.

Another aspect of Victorian life which, according to many reporters, could have a significant effect on schooling was the occupation of the parents of the potential school population. Emphasis was placed not unnaturally on the influence of working mothers but other topics could arouse strong emotions among reporters and league tables

of occupational indifference towards schooling were drawn up. The sheer bulk of the evidence makes it overwhelming - not to say confusing. For example, if Robert Baker is to be believed, workers in the pottery industry were bad.

"In a few years the race of potters of 1864 will, I trust, have been shamed out of their old habits, and become altogether reformed. We cannot look for much less drunkenness where there is such a predominant ignorance. In such an unsocial state there must be daily scenes, both at home and abroad, undoing much of the good which the half time system is attempting to affect; and, until this system has won its way amongst them, the potters' history must continue to be one of fruit bearing neglect, only perishing with the tree itself". [1] Drunkenness! Ignorance! Neglect! Could anything be worse? Thomas Wynne, Her Majesty's Inspector of Mines in North Staffordshire, obviously felt that it could for he categorised the colliers of his district as being "far behind most other portions of the working classes" in their attitude towards schooling. [2] But, according to a surgeon, Mr Poppleton of Bradford, "the physical appearance of the collier is superior to the worker in iron and the countenance of the latter is very expressive of the condition of mind which may be expected from the nature of their occupation". [3]

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1. Reports of the Inspectors of Factories. 31 October, 1866. 1867 [3794] xvi. 327. page 409.
2. Reports of the Inspectors of Mines. 30 April, 1865. 1865 [3557] xx. 1. page 72.
3. Reports of the Inspectors of Factories. 31 October, 1865. 1865 [3622] xxiv. 251. page 286.

Add to this the fact that many observers believed that it was in the brickfields that the most shiftless workforce was gathered and the worst excesses of Victorian industry were to be found, and the confusion becomes obvious.

Potter, collier, ironworker, brickmaker - one worse than the other or, in the eyes of a Factory inspectorate well versed in the successes achieved in the textile districts, all equally bad? Robert Baker at least tried to quantify the situation in North Staffordshire and, in an analysis of the applications for employment made by parents on behalf of their children, he concluded that the proportion of parents who were themselves totally ignorant did vary according to trade and that the greatest ignorance was concentrated among potters, with the colliers and brickmakers some way behind. [1] Although it was never suggested that parental ignorance could be equated with negative attitudes towards schooling, Robert Baker obviously found it not

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1. Report of the Inspectors of Factories. 31 October, 1865. 1865 [3622] xxiv. 251.

Trade of parent	% totally ignorant	Trade of parent	% totally ignorant
Potter	70	Factory worker	34
Collier	55	Mechanic	
Brickmaker	49	Shoemaker	32
Hawker	48	Engineer	
Carter	42	Mason	31
Painter	41	Blacksmith	30
Sawyer	38	Joiner	26
Tailor		Shopkeeper	20

unreasonable to assume that school enrolment would vary with parental occupation and that the greatest problems could be expected within certain well defined trades.

Given such evidence it is, therefore, surprising to find that the analysis of the census data provides little or no support for this argument. Indeed any examination of school enrolment among different trades is remarkable only for the very small deviations from the population mean. These findings would appear to cast doubt on the

Occupation of Father	Potter	Collier	Iron-worker	Brick-worker	Population
Number of Families	1196	569	272	49	3573
School enrolment (as a %)	69.3	65.3	63.3	67.4	65.9

ENROLMENT BY OCCUPATIONAL GROUP (of father)

judgment of Robert Baker and his fellow inspectors and it is interesting to speculate as to why there was such a preoccupation with this hierarchy of occupational shortcomings It is possible, of course, that differences did exist but they have not been drawn out by the method of analysis used. It is also possible that each individual inspector was guilty of the crime of exaggerating the ills of the areas and the trades for which he was responsible, so that his own failures would appear less blameworthy and his successes so much more meritorious. This is certainly a human response and it would at least account for condemnation being directed at so many widely differing targets.

One aspect of parental employment, however, drew upon

itself almost universal condemnation from government, school and church alike, and from a large proportion of educated opinion in the country as a whole. This was, of course, the employment of wives and mothers - a practice apparently so widespread that it threatened the very fabric of family life itself. "The fact of one class of workmen not getting to work until 6.00 p.m. because the furnaces are not ready means that nearly all classes may as well play on Monday i.e. drink and be improvident. It is for such husbands that so many mothers have to supplement the week's wages by her own; that infants are put out to nurse and often die from what is administered to them to keep them quiet, or become deformed by being left to the care of children a few years older, or, if they do not die, become 'gutter' and 'arab' children and so extensively the pupils of criminality and vice". [1]

Whatever the causes - and poverty and improvidence were generally accepted as being the main reason for women working - there was genuine concern about the problem and nowhere more so than in North Staffordshire, a district where the staple industry employed a large female labour force and where, according to Robert Baker, "women, from going early to work, have but few opportunities afforded them of becoming acquainted with home duties before they marry; and, in consequence, their homes are deserted by the men for the public house". [2] Could any cycle be more

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1. Reports of the Inspectors of Factories. 31 October, 1869. 1870 [C77] xv. 75. page 230.
2. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 523.

vicious or more intractable? Drunkenness and improvidence among men producing a degree of poverty which necessitated wives working. This, in turn, leading to a reduction in the quality of home life so severe that men were driven to yet more drink. And it was into this cycle that so many children were born; their lives to be influenced by an environment which would provide them with so little care or attention. Small wonder then that condemnation was so universal or that some of the master potters of North Staffordshire appeared to be fighting a solitary battle against the forces of change. In fact such a simplistic picture could only be a misrepresentation of the truth for the use of female labour, although more prevalent in certain areas and in certain industries, was widespread throughout Victorian Britain and the vast majority of the population not only found the practice acceptable but adapted itself to make provision for it. Among this group condemnation, if any, would have been reserved for the employment of the mothers of young children.

The scale of the problem in Hanley in 1871 can be ascertained from the census data. Of the 4451 family groups (i.e. family groups with children between the ages of three and fourteen) living in the town 777 or 17.7% had working mothers. [1] This group, although obviously important, is remarkably small considering that Hanley was a pottery town and this industry was notoriously

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1. In his study of working class families in Preston in 1851 Anderson indicates that the proportion of working mothers with children was 23%. Anderson, M., Family Structure in Nineteenth Century Lancashire. Cambridge University Press. 1971.

dependent upon female labour. Indeed the statistics collected by the Factory inspectors indicate that women made up no less than 38% of the labour force in the industry in 1864 and in Hanley, probably the most prosperous and progressive of the pottery towns, the figure was 33.6%. [1] This figure, representing a female workforce of 2240 in a single industry suggests that the majority of the women involved were not married women of child bearing age. [2] Support for such a conclusion can be drawn from the same inspectorate survey which indicated that no less than 46% of the female labour force in the pottery industry was under the age of twenty (the comparable figure for men was 35.2%) and that after that age the numbers in employment declined rapidly. At the same time, data from the census returns suggests that the incidence of employment among married women with children did not vary significantly with age - a conclusion which supports the view that it was marriage and child birth which was the dominant influence rather than age. In short, full time employment was the accepted norm among young girls but after marriage, and certainly after the birth of the first child, it became restricted to a comparatively small minority - a minority which was driven to seek employment largely as a result of extreme poverty.

Opinions about the possible effects on schooling of the mother leaving the home for work were divided. At one extreme there were those, including many inspectors,

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1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. page 63.
2. Of the 777 working mothers with children of school age only 420 were employed in the pottery industry.

who believed that working mothers used the school as nothing more than a child minding service and that in some areas the efficiency of certain classes could be threatened. According to this point of view school enrolment among families with working mothers was likely to be above average. At the other extreme there was a body of opinion which believed that the very poverty which drove a woman to work ensured that the fees would not be available to send the children to school and that, as a result, enrolment would be low.

Regression analysis of the census returns for Hanley provides strong support for the former point of view. When the variable OCCM (mother's occupation) is reduced to a simple dichotomy between working and non-working mothers it emerges as significant at the one percent level, with a trend which indicates that enrolment was considerably higher among the families of working mothers. Some indication of the strength of this trend can be drawn from the fact that enrolment, as measured by pupil ratios, among the families in this group reaches 71.5%, significantly higher than the comparable figures for both families with non-working mothers and for the population as a whole. Even more important, the trend is not confined to small factions within the group but appears to be equally strong throughout. Further support for such a conclusion is provided when analysis is carried out with the variable OCCM restructured

ENROLMENT (by status of mother)

	Non-working	Working
Mean Pupil Ratio	64.08	71.50
Standard Deviation	47.37	46.04
Number of Cases	3090	1353

to indicate the major types of female employment. This suggests that differences between occupational groups were slight and that it was not the nature of the employment taken up by the mother but rather the initial decision to start work which had the most important effect on school enrolment - a conclusion which gains a degree of confirmation from the almost universal condemnation by contemporary reporters of working mothers whether they were potters, dressmakers or washerwomen.

4. The Structure of the Family

Family structure was a major influence on school enrolment in Hanley in 1871 and the most important distinction was between 'normal' and 'non-normal' families. Normal families are those with the father, mother and children all living together as a group - other people in the same household not being taken as a deviation from this definition of normality. [1] Families are taken to be non-normal only when either, or both, of the parents died or left home or when a surviving parent remarried. Such a definition includes no fewer than 1040 (24.1%) of the families in the town and among this group enrolment is significantly higher than among normal families (71.6% compared with 64.6%, a difference which is significant at the 1% level).

The nature of the breakdown of the normal family structure is also both interesting and important since it too has a considerable effect on schooling. The major

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1. Household groups were generally larger than family groups in Victorian England and in Hanley almost 50% of families shared accommodation with other people - usually members of the kinship group.

difference here is between parents who have died and those who were not recorded as residing with their children on the day of the census. In the former group it is the death of the father which is by far the most common occurence - a development which is to be expected given the large number of accidents in Victorian industry and the high incidence of industrial diseases. The latter was particularly important in the pottery industry where the combination of clay and flint dust and the widespread use of lead in paint and glazes produced, according to Dr. Arlidge of Newcastle, one of the pioneers of the study of industrial disease, a mortality rate "which exceeded that for the whole of England". [1] Support for this case, which was disputed at the time, can be drawn from the mortality figures for North Staffordshire. It was no coincidence, for example that in the area as a whole in 1864 more than twenty five percent of deaths could be attributed directly to diseases of the lungs or that of sixty five flat pressers (machine makers of plates and saucers) examined by Dr. Arlidge no fewer than seventy percent suffered from such diseases at the time of death which occured on average in their forty first year. [2] Given such a pattern of disease and a life

FAMILY STRUCTURE

	Number of families with	
	Dead	Not at home
Father	317	96
Mother	104	43
Father and Mother	8	392

1. Reports of the Inspectors of Factories. 31 October, 1864. 1865 [3473] xx. 429. page 63.
2. Ibid page 64 & table.

expectancy in certain branches of the industry of less than thirty years, it becomes obvious that a considerable number of deaths could be expected among the fathers of children of school age and, in this context, the figure of 7.5% which emerges from the census is not surprising.

What is surprising, however, is the impact - or lack of it - of parental death on school enrolment within the family group. For, among such families the pupil ratios remained remarkably high and remarkably consistent, [1] suggesting that Victorian society was so well adjusted to death that individual families not only accepted it but managed to cope with it to such a degree that the fabric of family life was maintained even to the extent of trying to keep children at school. The exact nature of the process of coping varied considerably. Fathers left in charge of young children must have viewed the school as a godsend, providing as it did an efficient child minding service for a considerable proportion of the time he was at work; and among this group pupil ratios were remarkably high (81.8%). For a mother left to bring up a family, however, the situation was very different with abject poverty as the major threat. Some of these women sought employment and for them the schools were also places where children could be left in safety for long periods. Others, often those with very young children, were not able to do this and for this group there was sometimes no alternative to seeking

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1. The mean pupil ratio for all families in Hanley was 66.3% and for broken families it was 71.6%. Comparable figures for families where one or both parents had died were: father dead - 73.6%; mother dead - 81.8%; both parents dead - 89.8%.

relief. For a small minority this could lead to the workhouse but for the majority it meant outdoor relief which, in Hanley, included the payment of school fees. [1] The census indicates that there were 196 families with children of school age receiving outdoor relief and the majority of these were the families of widows. And it could be taken as a measure of the success of the system that school enrolment among this group was not significantly lower than for the population as a whole. But parish relief, whether indoor or outdoor, was regarded as a last resort and the vast majority of parents, whatever their financial straits, preferred self help to the social stigma associated with appearing before the Board of Guardians. As a result, many families, when faced with coping with the trauma of the loss of one or both parents, turned to the kinship group for help and help was usually forthcoming. The extent of this interdependence is reflected in the degree of multiple occupancy in the town, [2] and it is interesting to note that among those families who sought lodging with other members of the kinship group high levels of enrolment were maintained in spite of the death of a parent or parents.

The fact that levels of schooling were generally maintained under what could only have been extremely adverse circumstances is to some extent a reflection of the random nature of parental death which ensured that the group was likely to be representative of the population as a whole. The same cannot be said for the second major

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1. The Borough of Hanley formed part of the Parish of Stoke-on-Trent for the administration of the Poor Law.
2. This topic will be discussed in detail later.

group which contributed to the breakdown of the 'normal' family structure. Within this group it was not parental death which caused the breakdown but rather the absence of one or both parents from the children's home on the day of the census. In a minority of cases such absences can be attributed to business trips and short visits away from home. For the majority of the families, however, parental absence was longer term and much more serious. And once again it was the loss of the father which was most widespread - a development perhaps to be expected at a time of great population mobility when men moved considerable distances in search of work. More surprising is the number of children (456) who had been deserted by both parents and were living with relatives, usually grandparents, or even with people outside the kinship group. The causes of desertion on such a large scale are not immediately apparent but it is difficult not to read into it a degree of instability which was not present among the families affected by the death of one or both parents - an instability which must have included illegitimacy as well as simple shiftlessness.

The effect on schooling is also striking for within families deserted by the father the trend was towards a lower rate of enrolment while when the child was separated from both parents it was reversed. To a considerable degree this is a reflection of the fact that most of the children in the latter group would of necessity live with other family groups and would probably assume the patterns of behaviour associated with those families. Furthermore in the majority of cases it was a single child who was involved and the household into which he moved was often that of a close relative - usually a grandparent. Under such circumstances it is hardly surprising that comparatively

high levels of schooling could be maintained. For those families where the father was not living at home, however, the problems were severe since they often retained a family home and this added a considerable degree of financial hardship to a basically unstable situation - a combination which was likely to give rise to lower levels of enrolment.

In spite of its complexity, therefore, the evidence gives strong support for the argument that for families under stress the schools were indeed regarded as child minding institutes where young children could be left at comparatively little cost and in safety.

c) HOUSEHOLDING

In common with most of the developing industrial areas of England, North Staffordshire was a district in which rented accommodation predominated and the borough of Hanley was typical in this respect. Indeed fewer than 3.2% of the houses were occupied by their owners, the

NATURE OF HOUSEHOLDING	NUMBER	AS % OF FAMILIES	AS % OF HOUSES
Owner Occupier	110	2.5	3.2
Tenant,	3443	79.6	96.8
Lodging with kin	379	8.8	-
Lodging with others	275	6.4	-

HOUSEHOLDING IN HANLEY

remainder being rented. And almost eighty percent of families with school age children were tenants in such accommodation - the discrepancy being caused by the large number of families

registered as lodgers (15.2% of the total). In other respects, however, Hanley was far from typical, not least with regard to the ownership of the rented accommodation. Sample studies of house ownership in various parts of the town, for example, suggest that ownership was almost entirely in the hands of individuals and that company housing was virtually unknown - a reflection no doubt of the small scale of most of the industrial operations in the town. [1] Furthermore the individuals who owned the houses were usually little removed either in affluence or in social standing from those who rented them, with shopkeepers and small businessmen in a majority. Not only this, the owners often lived in the same street and often in an identical house, built at the same time and alongside the property which was to be rented. [2] The overall pattern, therefore, is one of great complexity with small scale building and piecemeal ownership the rule, and very little difference in social standing between those who owned property and those who rented it. This in turn is reflected in the pattern of school enrolment and analysis suggests that the

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1. House ownership can be traced through the rate books which have survived almost in their entirety for Hanley and Shelton.
2. Rose Street in Northwood is typical in this respect and in 1871 the pattern of ownership was:

Number of Houses		-	47
Houses occupied by owners		-	5
Houses rented	42	-	of which
	12	-	owned by shop keepers
	27	-	other business men
	3	-	individuals living in Rose Street

differences in schooling between children from families in owner occupancy and those holding tenancies were not significant.

As a result interest must inevitably centre on the behaviour of families who were in lodgings for it was apparently the failure to attain, or retain, a family home which made the most significant contribution towards explaining the variance in patterns of schooling. The census indicates that multiple occupancy was widespread in Hanley in 1871 and of the 4324 families with school age children in the town, no fewer than 2133 (49.3%) lived in shared accommodation. In the vast majority of cases, however, the house was held in the name of the head of the family and other people, usually parents, brothers or sisters had moved in with them. For 654 families, [1] however, multiple occupancy meant that they were taking up residence in another household; in short they became lodgers. Both of these aspects of multiple occupancy - the very fact that it exists and its exact nature - have a significant effect on the level of enrolment within the family or household group, and both are worthy of detailed study.

Enrolment within families living in shared accommodation is lower than that for families who live alone (a mean pupil ratio of 68.5% compared with 64.1%). Not only this there is evidence that the degree of multiple occupancy [2]

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1. Since this tudy must by its very nature concentrate on children of school age the term 'family' is here taken to include children living apart from their parents.
2. The degree of multiple occupancy (NVO) is obtained by subtracting the number in the family from the number in the household.

is highly significant (at the five percent level) with enrolment increasing as the number of people sharing the family home increases. This is a surprising trend and it is difficult to find any explanation for it since most contemporary accounts of city life suggest that the large lodging houses were likely to be occupied by the most disreputable elements of society - those elements least likely to attend school. But lodging houses of this type were conspicuous by their absence in Hanley in 1871 and in the vast majority of cases multiple occupancy meant one or two additions to the family group.[1] In circumstances such as these, therefore, it is not unreasonable to suggest that the formation of what were virtually extended kinship groups could give added stability to family life and, particularly if the two additional members were adults, could provide the financial resources needed to send the children to school.

Support for such a thesis emerges from a more detailed study of multiple occupancy. It has already been suggested that the most significant effects of the phenomena were felt when a family group, including children of school age, was forced to take up lodgings. Within this group, however, striking differences occur in the pattern of schooling. If, as happened in 379 cases, the family took up lodgings with another member of the kinship group, school enrolment became significantly higher than for the population as a

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1. In no fewer than 57% of the cases multiple occupancy was confined to one or two additions to the family group.

whole. If, on the other hand, lodgings were sought outside the kinship group (and this happened to 275 families) then enrolment became significantly lower. [1] Given such a pattern it is difficult not to conclude that the extended kinship group provided a stable base which enabled children to attend school - a base produced perhaps by the pooling of resources both in terms of money and of manpower. Equally it seems likely that no such base existed among those families who lodged outside the kinship group and it was the children of these families who were at greatest risk. A degree of confirmation of this hypothesis can be drawn from the contrasting composition of the two groups. This indicates that the vast majority of families lodging

ENROLMENT AMONG FAMILIES IN LODGINGS

Percentage of families:	Those lodging within the kinship group	Those lodging outside the kinship group	All Families
with no father	77.6	42.5	19.5
with no mother	65.7	37.8	12.7
with neither father nor mother	59.4	24.0	8.9
with a 'normal' structure	19.8	46.5	75.6
with a working mother	14.5	23.7	12.7
on parish relief	9.0	6.9	4.5

1. Comparative figures for school enrolment are as follows: All groups - 66.3%; those lodging within the kinship group 71.7%; those lodging outside the kinship group - 61.3%.

within the kinship group were forced to do so as a result of a dramatic change in circumstances, often the loss of one or both parents. In these circumstances a member of the kinship group, usually a close relative, responded by taking in the remaining members of the family and the children, now forming part of an extended family, were sent to school along with the children of the house. Furthermore, since there were many instances of a single child being adopted into households containing no other children of school age, it is hardly surprising that levels of enrolment were high. Among those who took up lodgings outside the kinship group, however, the situation was very different. Here the evidence of catastrophic breakdown is less obvious and in almost half the cases the family structure was normal. This suggests that the low enrolment rate among this group may be attributable more to the nature of the parents than the circumstances of the family, and here at least there is some supporting evidence for the view that schooling was particularly restricted among the least stable elements of society - that is, if it can be assumed that family groups with a normal structure and one or both parents in employment but who took up lodgings, comprised part of this strata of society.

Such an assumption is of course questionable since families undoubtedly took up lodgings outside the kinship group for a variety of reasons. As we have already seen, the census of 1871 was taken towards the end of a period of rapid population growth in Hanley and it is likely, therefore, that a considerable number of families would

have moved quite recently into the town and for such families lodging would be a temporary phenomena. [1] And, perhaps even more important, apparent normality of structure and of employment did not always protect families from the effects of poverty which was often quoted as a cause of poor attendance. It is possible, therefore, that the families in lodgings were simply too poor either to maintain a home or to send their children to school and the causes of this poverty, whether imposed by external events or self inflicted, can rarely be ascertained.

d) POVERTY

Of all the potential causes of low school enrolment poverty is both the most plausible and the most difficult to define. Certainly most contemporary reporters isolated it as a major influence but so few examples of individual family budgets have survived that it is an influence which is almost impossible to quantify and which can usually be approached only by means of indirect measures.

The extent of the difficulty becomes immediately apparent when the first element of the equation of poverty - namely family income - is considered. Details of the

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1. There is no evidence, however, that recent immigrant families were over-represented in the group which lodged outside the kinship group. Indeed, if anything the reverse was true. For example, in the population as a whole 51.5% of fathers and 57.1% of mothers were born in Hanley or the neighbouring pottery towns. The comparable figures for families lodging outside the kinship group were 60.1% and 82.2%.

wages paid to workers in Victorian industry are generally in short supply and nowhere more so than in the case of the pottery industry with its multiplicity of small scale factories and highly individualistic trade skills. As a result surviving records - usually in the form of average earnings - are virtually meaningless and hardly the basis for any detailed examination of the problem of poverty. The return prepared by Robert Baker for the pottery industry on the eve of the second extension of the Factory Acts is fairly typical. This suggested the following wage structure in the industry:

Adult males	: skilled	-	36s.0d	- 40s.0d.
	: unskilled	-	24s.0d	- 27s.0d.
Adult females	: skilled	-	12s.0d	- 15s.0d.
	: unskilled	-	8s.0d	- 10s.0d.
Young persons	: male	-	17s.0d	- 15s.0d.
	: female	-	5s.0d	- 10s.0d.
Children (half time)	:		2s.0d	- 3s.0d. [1]

Highly generalised figures which do little more than highlight the enormous differentials which occurred between the wages of men, women and children. Fortunately this return was accompanied by a more detailed survey of wages in the district - a survey which gives some impression of the range of payments within a single industry. [2] From these statistics it is possible to construct a league table

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1. Reports of the Inspectors of Factories. 31 October, 1866. 1866 [3622] xxiv. 251. page 409.
2. Ibid.
   These figures were collected at a time when the recovery from the depression which accompanied the American Civil War was at its height.

of earnings headed by the firemen responsible for the firing of the ware who earned up to 50s.0d per week to general labourers earning half that amount. [1] But the relevance of such a league table of wages is open to question and never more so than when it is applied to an industry famed more for its fragmentation and irregularity than its tendency to conform to any mean.

The problems of interpreting such statistics are both serious and obvious but they are as nothing compared with the difficulties presented by the remaining elements of the equation - the expenditure of the family. Detailed information concerning this is virtually non-existent and the only recourse is to general surveys such as those contained in the Reports of the Commission for the Employment of Children and in Rowntree's study of the urban poor. [2] Both suggest that a large number, indeed perhaps a majority of working class families lived on the verge of poverty and that the bulk of the family income was absorbed by the provision of necessities such as food, clothing and accommodation. If this was so then schooling, which was certainly not essential, would inevitably suffer with any change in family circumstances. This would happen not only because schooling involved the payment of fees

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1. Comparable figures for other important trades in the district were: colliers, 18s. 0d - 30s. 0d; forgemen, 18s. 0d - 42s. 0d; puddlers, 21s. 0d; bricklayers, 30s. 0d.
2. Report of the commissioners enquiry into the employment of children 1842. Rowntree, B. S., Poverty, a study of townlife. McMillan. London. 1901.

satisfactory clothing and equipment were to be provided. These costs may not have comprised a large part of the family income but they could absorb much of any surplus which might have been left when basic necessities had been provided, particularly when the number of school age children in the family reached three or four.[1] In this case the additional costs, which may have amounted to 1s.0d or even 1s.6d. were likely to prove excessive and schooling would be sacrificed. Such an argument is plausible in the extreme but it can only be tested by referring to other indirect measures of poverty.

Two of those measures have been considered in detail. One - the incidence of working mothers - displays a comparatively weak relationship with the degree of schooling. The second - the loss of the father - was highly significant and contributed to a dramatic lowering of enrolment rates. Of the remaining measures, it is perhaps surprising to find that the quality of housing, as measured by rateable value, does not make a significant contribution towards explaining the variance in school enrolment. The rate books for the town do, however, contain evidence that poverty was a strong contributing factor since schooling was significantly lower among those families who were recorded as owing part of the rates. Furthermore this trend was strongest among broken families, among families with working mothers and in households containing lodgers who did not belong to the kinship group - in short, families in which the education

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1. It has already been noted that few families included more than three children of school age.

of children was already likely to be seriously at risk. The number of such cases was small (no more than 82 families) but within this group there was an over representation of large families, of older than average parents and of working mothers. Apart from the last factor there is no apparent relationship between failure to pay rates and other possible indices of poverty.

Finally there is the one measure of poverty about which there can be no dispute - the number of families in receipt of outdoor relief - and since these families were excused from paying rates, a record was invariably kept in the rate books of any householder reduced to such dire circumstances. In 1870 two hundred and two families appeared on this list and this was undoubtedly a gross underestimate since no record has been preserved of those families in lodgings who had been forced to seek relief. Since the Relieving Officer was empowered to pay school fees as well as rates, however, it is hardly surprising that enrolment among families in receipt of relief was very near to the average for the population as a whole. Thus the effects of the only real measure of poverty available were nullified and relief does not emerge as a factor which has a significant effect on school enrolment.

e) SPATIAL INFLUENCES

Two aspects of the spatial distribution of schooling in the town merited particular attention during the period leading up to the passing of the Elementary Education Act and one of these - the potentially adverse affect on attendance of increasing distance from the nearest school - was to be reflected in the Bill itself.

Experience had indicated that the majority of parents were not prepared to send their children long distances to school and the Bill, when drafted, empowered school boards to include in their local bye-laws a clause which excused from attendance any child living beyond reasonable reach of the nearest school. The Hanley School Board accepted this recommendation and article 4(c) of the bye-laws reads - "A child is not required to attend if there is no public elementary school within half a mile if under the age of seven and within one mile if above that age". The imposition of such a low threshold suggests that the members of the Board had little confidence in the acceptance of 'compulsory' education by the parents of Hanley and it is, therefore, surprising to find that distance does not make a significant contribution towards explaining the variance in the pattern of schooling.

The lack of any clear relationship between enrolment and distance is less surprising, however, when it is appreciated the latter variable can be quantified only in terms of the distance of each child from the nearest school and, in a system dominated by denominational interests, this school was not necessarily the first choice of the parents. Certainly in the case of Bethesda - the only school run by the New Connexion church - pupils were drawn from most parts of the town, suggesting that in small number of cases at least parents were prepared to exercise a considerable degree of choice when it came to selecting a school for their children. [1] In most cases, however,

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1. School lists have survived for three schools in Hanley and these suggest that girls travelled further than boys and that pupils at Bethesda travelled

/Cont...

children did enrol at the nearest school and this was rarely more than a few hundred yards from the home. At the same time it must be remembered that some of the schools in the borough were grossly over-crowded and could not always accept new pupils even when they lived on the doorstep. More surprising perhaps is the fact that distance does not appear to have a significant influence on actual attendances at the three schools for which records have survived - a tribute no doubt to the compactness of the town and the density of the network of schools established by the voluntary agencies.

The second aspect of the spatial distribution of schooling in Hanley, namely the relationship between enrolment and geographical area, is more complex but more easily explored. The traditional view of the Victorian industrial town, based to a considerable degree on the graphic accounts left behind by writers such as Dickens, is of a confused conglomeration of housing and industrial and business premises; teeming with people, many of whom were living on the verge of abject poverty; and displaying no coherent plan or pattern. Such a view would, however, be a gross over-simplification of the true situation and even a town like Hanley, with a population of less than fifty thousand and covering an area so small that the lack of an effective system of public transport had not seriously

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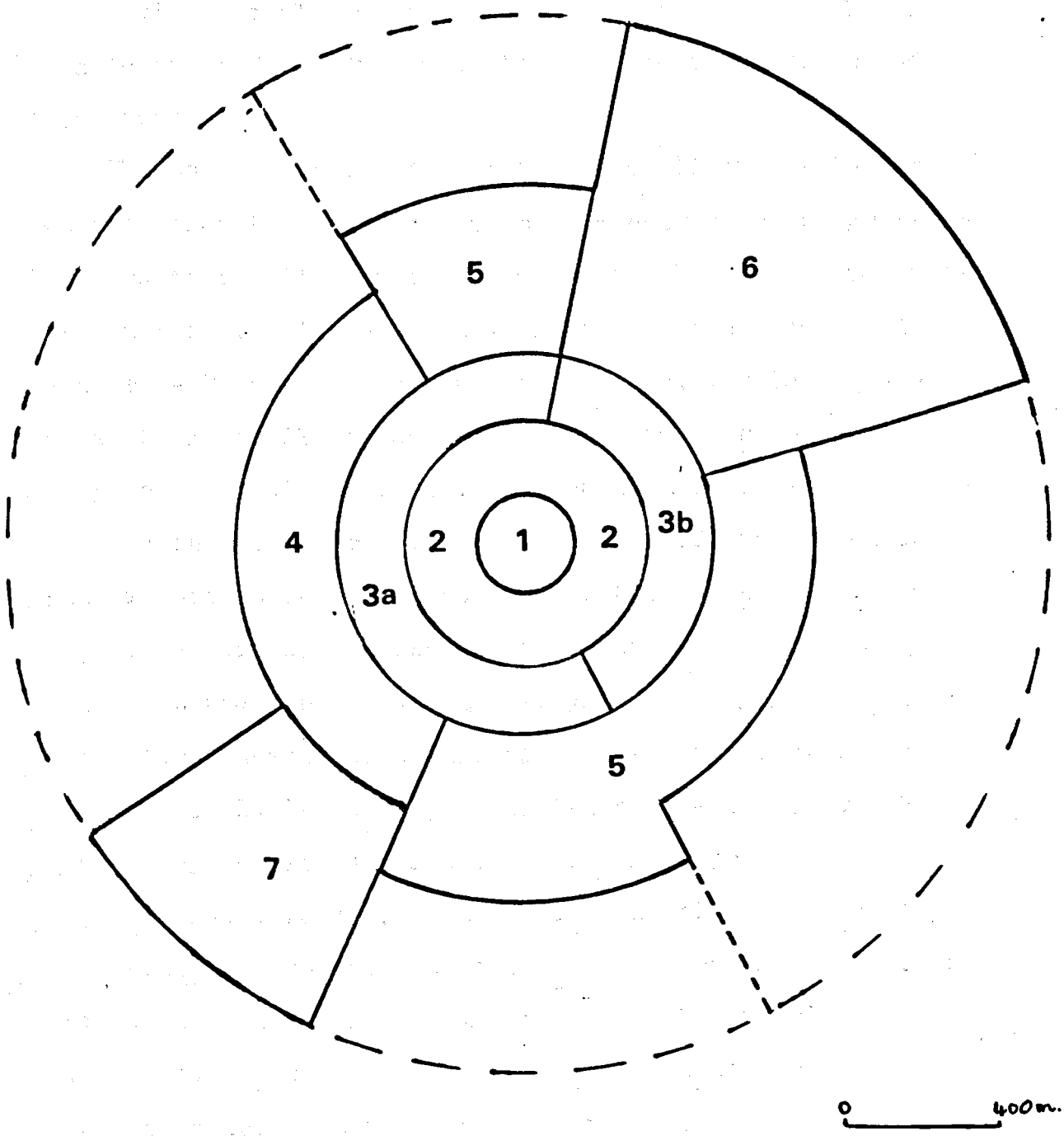
(Footnote continued from page 241)

further on average than those at Northwood National School e.g. the mean distance travelled to Northwood School was 210 metres and 85% of pupils lived within 400 metres of the school while the comparable figures for Bethesda were 280 metres and 62%

HANLEY 1871

(urban form)



1. Town Centre
2. Industrial collar
3a. Poor working class housing
3b. Old middle class housing
4. Poor working class housing and heavy industry
5. Working class housing
6. Recent working class housing
7. Affluent area

influenced growth, was already showing a tendency towards partition into a number of more or less clearly defined districts, each with an indentity of its own and each displaying social and economic characteristics which can be quantified using data from the census returns and rate books.

The town centre, a comparatively small area extending no more than two hundred metres from east to west and three hundred metres from north to south, can be readily identified. It comprised, as it does today, no fewer than five small squares - Market Square, Fountain Square, Tontine Square, Crown Bank and Albion Square - linked by a framework of comparatively wide streets. The main public buildings were located in the squares and the linking streets housed the most important shops and hotels. Within this loose, indeed haphazard framework, however, there was room for dramatic contrasts and the courts and alleys which lay behind the prosperous facades contained some of the worst slums in the towns. It is this juxtaposition of extremes which gives the area its distinctive flavour. For example domestic rateable values were among the highest in Hanley - a reflection no doubt of the number of business premises which also contained accommodation for the proprietor and his family - but associated with this was an equally high range of values. Similarly population densities were comparatively low, as might be expected in an area so dominated by business and commercial premises, but the degree of multiple occupancy was significantly higher than for most other parts of the town. And, given this pattern, it is hardly surprising to find that workers in non-manual occupations are more numerous here than in any

other area of Hanley.

Surrounding the town centre was a zone of such confusion and complexity that it almost defies description. Here indeed were found the expected courts, alleyways and narrow terraced streets; and here population densities could be more than double those found in the rest of the town. Among the houses stood numerous pottery factories, some so small that they employed no more than a handful of workers, others among the largest in the district. The existence of old and often squalid housing in such close juxta-position to uncontrolled industrial developments helped produce some of the excesses so often associated with Victorian towns and cities. Certainly the rating returns suggest that a large proportion of the houses were poor even by the low standards of the day and over-crowding was more prevalent here than in almost any other part of Hanley. It would be a mistake, however, to view the area as nothing more than a seething slum since the main roads out of the town centre were lined with shops and small businesses, providing a considerable number of highly rated premises and a leaven of higher social classes. As a result mean rateable values were higher than might be expected, as was the average social class.

Beyond this industrial 'collar' lay a second zone of housing and small scale industry, similar in many ways but distinguished by its later development and greater uniformity - a uniformity reflected in a much lower degree of variation in rateable values. In the north and west the houses were of poor quality, rateable values were on average among the lowest in the town and population densities among the highest. Multiple occupancy was

particularly prevalent in this area and many of the families sharing accommodation were lodging outside the kinship group. Furthermore living conditions were made worse by the fact that in many places, particularly to the west of the town centre, the houses were adjacent to areas of heavy industry and the tips and spoil heaps of the Shelton Ironworks and the coal and iron mines associated with them were already threatening the environment. On the eastern side of the town, however, the pattern was very different. Here on the high ridge which overlooked the town centre a residential neighbourhood had grown up which attracted the more affluent working class families and representatives of the middle classes. It was, however, an area which was already under threat from the rapid industrialisation of the town and the high average rateable value was associated with a wide deviation about the mean - a pattern which reflected the building of workers' terraces among the more spacious streets which already existed.

One refuge always remained for the more affluent members of the professional and business community. To the south of the town, along the main road linking Hanley to Stoke-upon-Trent was an area of large villas and imposing mansions, some of them, in the vicinity of Howard Place, forming miniature estates. But by 1871 this district had already passed its prime. Industries, established in the first half of the century on the banks of the Caldon Canal had grown in size and importance and with them came the inevitable working class terraces. And the flight of the middle classes from the industrial town had already begun with the wealthier members of society moving out into

the neighbouring countryside. In spite of this the area was still the most affluent in the borough, rateable values exceeding those inthe working class areas by as much as two thousand percent; and, as might be expected, the non-labouring classes found their greatest representation here. But even here the effects of change were already clearly apparent,particularly in the wide dispersal about the mean of both rates and social class.

This, the basic framework, of the town had emerged during the first half of the nineteenth century and it was to bear the strain of rapid growth when the industrial development of Hanley reached its peak after 1851. This resulted in an enormous increase in population which, in turn, gave rise to housebuilding on a scale not previously seen. In many instances this took place within the existing boundaries of the built up area and this infill merged almost imperceptibly into the surrounding neighbourhood. At the same time, however, massive developments took place in Shelton, to the west of Great York Street and, above all, in the Northwood area to the north east of the town. In each case the aim was to provide more cheap working class housing and often the quality of that housing left much to be desired. [1] Even so they were an improvement on the older houses near the town centre and they attracted

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1. Staffordshire Sentinel. 29th October, 1870. Report of the Inspector of Nuisances. "I visited a house in Vincent St., Northwood and found the roof in very bad condition, having sunk on one side and in some parts of the centre by at least twelve inches. There is no drain to the houses and I believe they have not been built more than two years".

the more stable elements of the working classes. As a result these areas are characterised by a remarkable uniformity both of rateable values and of social structure, and high population densities.

There is also an obvious relationship between certain socio-economic variables and geographic area. The immigrant population,for example, tended to be concentrated in older residential streets near the town centre where rents were particularly low. Not only this, there was a strong concentration of immigrants of different origin - the Irish settling in the poorest areas to the west of the town centre, the Welsh in the more respectable areas to the north east. It was in the areas near the town centre that multiple occupancy was widespread, as was the tendency to take up lodgings outside the kinship group. There was also a degree of occupational grouping in different areas of the town, particularly among colliers and ironworkers who tended to live near to their place of work. This being the case, did school enrolment display marked spatial variation and, if it did, could such variation be explained in terms of the socio-economic structure of the different districts of the town?

The map, on page 251 shows the pattern of schooling in Hanley, as measured by pupil ratio and it is quite clear that the variations are strong. And not only is the differentiation in the pattern strong, it appears to bear a close relationship to the reputation of the districts concerned.

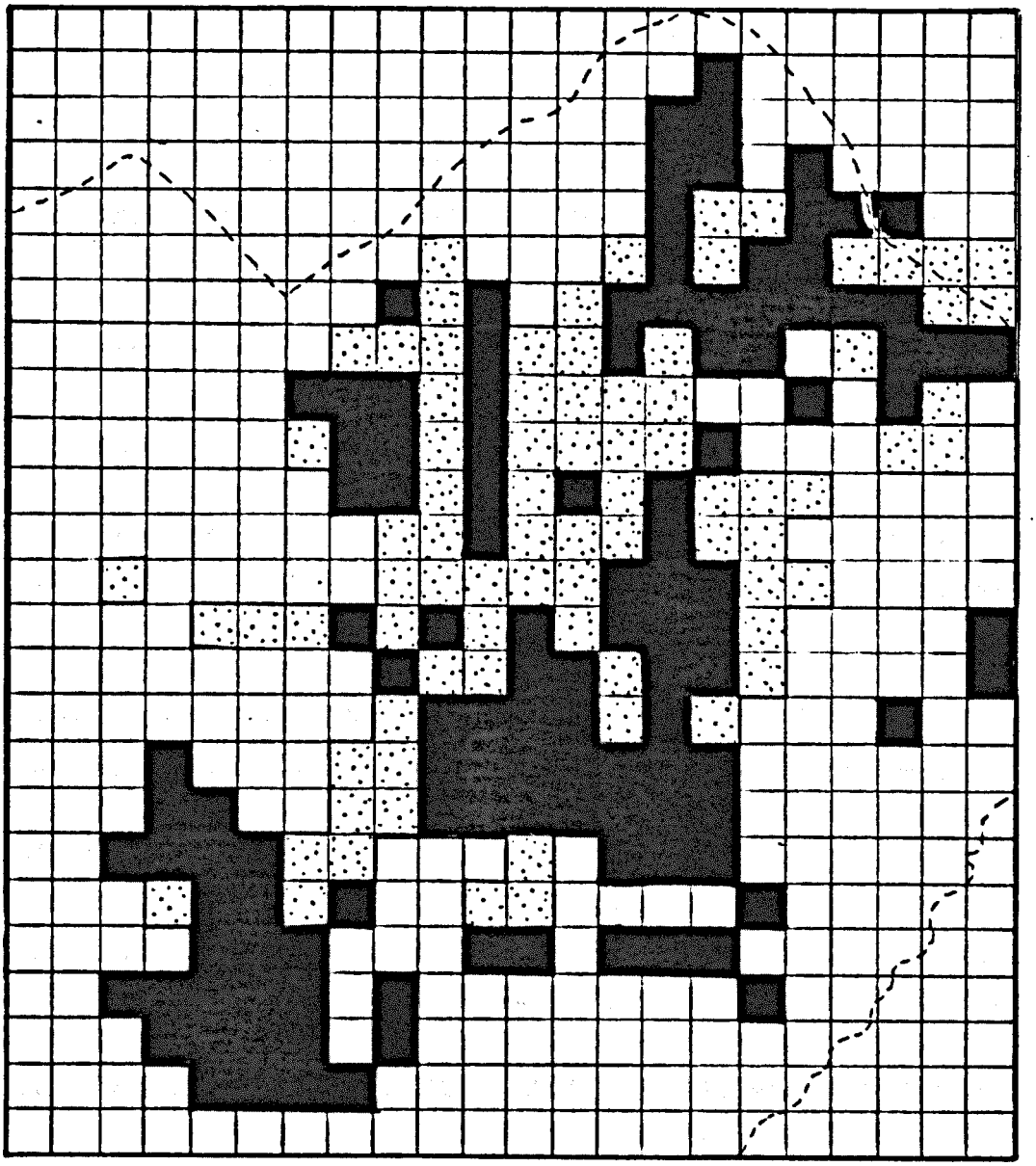
The areas of high enrolment were almost without

Areas of High Enrolment	Areas of Low Enrolment
1. Shelton from Victoria Place to Howard Place.	1. The Broad St. area of Shelton.
2. The town centre.	2. The Marsh St., Mill St., Foundry St. area.
3. Charles St. & Bucknall Old Road area.	3. Bryan Street.
4. The Bethesda St. area to the south east of the town centre.	4. The area to the North East of the town centre.
5. The western part of Northwood.	5. The Botany Bay area of Northwood.

exception the better class residential districts of the town - the town centre; Shelton; and one or two older enclaves to the east of the town centre. While such a pattern might at first sight appear to be predictable, it must be appreciated that the relationships are far from simple and that there are many confusing influences at work. These range from relatively minor factors such as the tendency among the very wealthy, most of whom lived on the southern outskirts of the town in the Howard Place area of Shelton, either to educate their children at home or to send them away to school, both of which undoubtedly led to a reduction in the number of scholars recorded in the census; to major factors such as the rapid change which the explosive growth of the town had produced. This had resulted in the encroachment of working class housing into previously exclusive residential areas and this in turn produced patterns of behaviour which did not always conform to expectations. As we have seen the areas most under threat were those on the crest of the ridge to the south east of the town centre - the area around Charles Street and Birch Terrace - which had already been engulfed by the rising working class tide and which were all too quickly losing their original identity. But, even the very affluent areas of Shelton were finding it difficult to avoid the encroachment of industry and housing as it spread inexorably along the banks of the Caldon Canal. Given such rapid change, therefore, it is surprising that this relationship remained so strong in 1871.

It was not the areas of high enrolment which attracted attention, however. The major problem was known to be failure to attend school and this was a failure which, it

SCHOOL ENROLMENT 1871



Above average Below average

0 400m.

was confidently predicted would be most prevalent among certain classes in certain districts. Support for this opinion can be drawn from the pattern of enrolment in Hanley where pupil ratios were often low in areas of poor housing. And five areas were particularly notorious.

1. The Broad Street area to the south west of the town centre. Broad Street itself was lined with shops and business premises but behind this more affluent facade were narrow terraced streets which housed some of the poorest inhabitants of the town. And, of particular ill repute were the so-called 'Royal Streets', sandwiched between Broad Street and Cannon Street.

2. To the north of the 'Royal Streets' and almost due west of the town centre was an area of greater poverty, comprising the courts and alleys leading off Marsh Street and Trinity Street. These streets, overlooking an industrial wasteland of iron furnaces, collieries and ironstone pits, were among the most squalid in the town and they had already attracted the poorest and most destitute elements of the population, including many recent immigrants. And here were found the only large lodging houses in Hanley which catered for their needs.

3. On the northern limits of the town, where housing gave way to yet more industrial wasteland, lay Bryan Street and Chell Street, separated by the towering spoil heaps of Shelton Colliery but united in poverty and apparent apathy towards education.

4. Between Bryan Street and Chell Street and the town centre is a much larger area of low enrolment, comprising the streets on both sides of Town Road and in places lying less than a quarter of a mile from Market Square, the

commercial centre of the North Staffordshire Potteries.

5. In Northwood the areas of low attendance were at the eastern end of Keelings Lane, particularly in the vicinity of Botany Bay, one of the most notorious areas in the Borough of Hanley.

The identification of such areas is comparatively easy; what is more difficult is to establish the characteristics which contributed to the variation in levels of enrolment in those areas. It has already been suggested that contemporary perceptions concerning each area were well developed and clearly defined - Howard Place was a centre of upper middle class affluence, Botany Bay a maze of lower class poverty and squalor. If this was the case it should be possible both to quantify these perceptions, particularly in terms of property values and of the social standing of the inhabitants, and to relate their socio-economic characteristics to levels of enrolment. As a means of differentiating between extremes this method appears to have some validity e.g.

	Mean Pupil Ratio	Mean Rateable Value	Mean Social Class
Howard Place	92.5	17/6	3.9
Botany Bay	51.9	4/7	5.6

But the relationships are not strong and they provide no basis for understanding patterns of enrolment in less affluent and less poor areas. Why, for example, should levels of enrolment be over 80% in the western part of Northwood while in Botany Bay, an area apparently little different in terms of the quality of housing and the social make up of the population and less than half a kilometre away at the bottom of the hill, the comparable

figure was little more than 50%? And why should school enrolment in Tinkersclough - an area of working class housing and heavy industry - approach the levels seen in Howard Place, some four hundred metres to the south east rather than the low levels attained in the 'Royal Streets', a similar distance to the east?

The relationships which underlie this pattern are obviously extremely complex and worthy of further study in their own right. And that study might be based on a detailed examination of small areas of housing since it is possible that the hundred metre grid used in this analysis was too coarse and that more significant variations were taking place within the individual streets which often displayed a social order of their own. Despite these limitations, however, it can be said the schooling in Hanley displayed significant spatial differentiation and that some of the differences can be related to the social make up of the various neighbourhoods. Unfortunately the latter is difficult to quantify but report and opinion concerning these neighbourhoods abounds and, using this subjective evidence, a relationship does appear to exist, with enrolment being highest in affluent areas, and lowest in the older working class districts near the town centre. It is a relationship which may have been complicated by other factors such as the availability of school places, but it is also one which was possibly strong enough to suggest that the words of the Reverend James McCosh were relevant to the situation in Hanley and that there were indeed "certain streets, lanes or districts .... possessed

by this class (the worst portion of our population) and they countenance each other in their degradation and in the end no others will live there.... Talk of influencing such places by public opinion! In truth there is a public opinion even here but it is certainly not in favour of education! [1] And if this was the true situation in Hanley then it should have played a dominant part in the deliberations of the first School Board. That it did not is confirmed by the decisions taken by the Board which reflected its pre-occupation with the problem of provision rather than with the more intransigent issue of compulsion.

1. McCosh, Rev. J., "On Compulsory Education". Transactions of the National Association for the Promotion of the Social Sciences. Belfast. 1867. page 382.

ATTENDANCE

INTRODUCTION

If the voluntary agencies were so successful in introducing children into their schools why then was there such dissatisfaction with the system and such a vociferous campaign for the introduction of universal compulsion? If, as the figures for Hanley suggest, three quarters of the children in the town were thought by their parents to be enrolled at school , then to introduce universal compulsion would appear to be a classic case of taking a sledge hammer to crack a nut; and even to contemplate a new agency, such as a School Board, to broaden the base of popular education might suggest that both the government and the Borough Council of Hanley had taken leave of their collective senses. But, as we have seen, nothing could be further from the truth for at no stage could either of these august bodies have been accused of extravagance and at no stage was it likely that a drastic and expensive solution would be adopted if a cheaper, though less dramatic, alternative was available. Why then, against such a background, was the case in favour of reform seen to be so strong?

The answer is, of course, quite simple; enrolment was only one part of the more complex equation which represented the extent of schooling in Victorian England. Another, and perhaps more important part, was the day to day attendance of children at schools and it was in this area that the most glaring deficiencies were to be found. Indeed, so obvious were these deficiencies that comments about irregularity of attendance and 'the short duration of the stay at school' [1] of most scholars were to be found

1. Reports of Her Majesty's Inspectors of Schools. 1867. 1867-68 [4051] xxv. 1. page 374. /Cont.....

in the majority of inspectorate reports and statistics proving the case proliferated in the appendices of such reports. Two sets of statistics were particularly damning - those summarising the duration of schooling for individual pupils and those comparing average attendances with the number of children entered on the registers of the schools inspected.

The extent of the problem is encapsulated in the comparison between enrolment and actual attendance. In 1870, the year prior to the establishment of the first school boards, no fewer than 1,949,026 children were recorded as being on the registers of 'efficient' schools. In that same year the average daily attendance at such schools was calculated as being 1,355911 - less than 70% of those registered. [1] Alarming as these figures may

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(Footnote continued from page 256)

This comment made by Mr Renoulf, Inspector of Roman Catholic schools in Southern England is typical: "It is not surprising that a large number of managers, finding it impossible to overcome such difficulties as the irregularity of attendance, the short duration of stay at school, and the removal at an early age, should wish it to be met with legislative measures. The opinion favourable to compulsory education has been quickly but steadily growing for the last three or four years but I am not quite sure that those who are advocating it have a very clear notion as to the mode of harmonising it with the denominational system".

1. Reports of the Committee of Council in Education 1870. 1871 [C406] xxii. 1.

appear, they can be taken to be no more than a very conservative estimate of the true extent of the problem. This emerges more clearly from an examination of the situation in individual schools. At St Mary's and St Patrick's Roman Catholic Boys School in Hanley, for example, a return submitted to Inspector P. le Page Renoulf at the end of the school year 1866 is recorded in the log book. This indicates that there were 90 boys on the register on the 2 October 1867, the day when the return was completed; and the average daily attendance for the year was calculated to be 66.6%, a figure which placed the school some way above the national mean. Any pride which the managers and teachers felt would have been tempered by the knowledge that in order to sustain this average it was necessary for no fewer than 208 boys to have made an appearance at the school during the year![2] If the average daily attendance is assessed against this yardstick, it represents no more than 32% of the total number of pupils enrolled - a figure which is confirmed by the average number of attendances made by each scholar (146 out of a possible 456). There is, of course, always the possibility that St Mary's and St Patrick's school, being a Roman Catholic school, was not typical of the schools in Hanley during the 1860's. Fortunately detailed records have survived for other schools and they confirm the patterns already observed. At Northwood National Boys School, for example no fewer than 423 boys

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1. Log Book: St Mary's & St Patrick's Boys School, Hanley, 2 October, 1867.
2. The situation would be even worse if re-admissions were taken into account.

	FULL TIME	HALF TIME	TOTAL
TOTAL NUMBER ENROLLED(a)	301	122	423
NUMBER ON REGISTER DECEMBER (b) 1871	260	50	310
AVERAGE ATTENDANCE (c)	-	-	150.8
(c) as a percentage of (a)	-	-	35.6
(c) as a percentage of (b)	-	-	48.6
AVERAGE NUMBER OF ATTENDANCES PER SCHOLAR (d)	124.9	78.6	114.78
(d) as a percentage of maximum possible attendances	41.6	52.3	-

ATTENDANCES AT NORTHWOOD BOYS SCHOOL: 1870

were enrolled in order to produce a register of 310 pupils, and, the average daily attendance was little over 150 - a level which closely resembles that produced at the catholic schools. Similarly the average attendance per pupil (41.6% for full time scholars and 52.3% for half timers) does little to suggest that school attendance was not the major problem facing the Hanley School Board or that there was not a strong case for the introduction of some form of direct compulsion. It may not have been true, as Forster suggested, that more than half of the school age population never entered school, but it was certainly true that the majority of those who did attended so infrequently as to render the experience virtually useless.

If the scale of the problem is not difficult to establish, neither is its nature, for the contemporary accounts which catalogued the failures of the voluntary system spared few details of the causes of these failures. Not that any great perception was required to establish the major factors underlying such low levels of attendance, and teachers and inspectors alike were quick to point out both the short duration of much of the schooling enjoyed by working class children and the rapid decline in attendance among older children. The pattern of schooling which emerges from these statistics is striking. For example a long period of schooling at the same school was the exception rather than the rule. To some extent this may have been a reflection of the large scale movements of population which were taking place in nineteenth century Britain; and the pattern was undoubtedly thrown into relief by a system of administration which encouraged the

	% of scholars who have attended the same school for:					
	- 1yr	1-2	2-3	3-4	4-5	5+
1853	47.8	21.0	13.0	8.5	4.8	4.9
1860	36.0	21.9	17.0	11.5	7.1	6.5
1865	39.0	22.0	15.3	10.2	6.8	6.8
1867	39.1	22.4	15.1	10.0	6.5	6.8
1868	40.5	22.9	14.9	9.6	5.9	6.3
1869	40.9	23.3	14.9	9.3	5.7	5.9
1870	40.3	23.3	15.0	9.4	5.8	6.1

ATTENDANCE: BY LENGTH OF STAY AT THE SAME SCHOOL [1]

1. Reports of the Committee of Council on Education 1870.
   1871 [c406] xxii 1. Appendix 1.

removal of names from the register after a comparatively short period of absence.[1] But, more than anything else, the figures must reflect a cavalier attitude towards schooling which saw children entering and leaving schools with bewildering rapidity; sometimes to enrol at a neighbouring school , sometimes to re-enrol at a school recently deserted. How else is it possible to explain a situation whereby almost two thirds of the school population had attended the same school for less than two years? Furthermore it was a situation which was no longer improving, as it had during the 1850's. Then the proportion of children who had been in the same school for less than two years fell from 68.8% to 57.9%; at which point the improvement ceased and the number of short stay pupils started to rise again.

Related to this trend and equally disturbing was the failure of the schools to retain their older pupils. The national statistics, collected by the inspectorate, suggest that the major problems appeared among children aged ten and over - children who were entitled to leave school providing certain standards had been attained and who obviously did so at the first opportunity. Or did they? The enrolment statistics for Hanley suggest a more complex pattern of behaviour. For example, although the overall trend is very similar, it appears that enrolment matches or exceeds that which might be expected from a given year group up to the age of twelve and that serious decline

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1. It was usual to remove a child's name from the register after an absence of two weeks unless a satisfactory explanation was given.

	PERCENTAGE OF SCHOLARS AGED											
	UNDER 4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14+
1855	2.9	4.6	7.1	10.7	13.4	14.1	13.6	12.0	9.0	6.4	3.6	2.3
1860	5.3	7.2	9.7	11.6	12.5	12.2	11.9	10.1	8.0	5.7	3.3	2.4
1865	6.3	7.5	9.9	10.8	12.7	14.0	11.7	10.3	8.0	5.7	3.7	1.8
1868	6.5	8.3	10.6	11.2	12.2	11.9	11.3	9.9	7.8	5.5	2.8	1.6
1869	6.5	8.3	10.8	11.2	11.9	11.9	11.4	9.9	7.9	5.6	2.8	1.6
1870	6.2	8.3	10.7	11.4	12.0	11.8	11.3	10.0	7.8	5.6	2.9	1.6

SCHOLARS ON THE REGISTERS OF INSPECTED SCHOOLS: BY AGE [1]

1. Reports of the Committee of Council on Education 1870. Appendix 1. 1871 [C406] xxii. 1.

	PERCENTAGE OF SCHOLARS AGED										
	UNDER 4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14
CHILDREN ENROLLED AT SCHOOL (a)	6.6	9.2	11.6	11.4	11.5	10.9	10.9	10.2	7.7	6.2	3.4
THE ENTIRE AGE GROUP (b)	10.4	10.0	10.2	9.6	9.5	8.9	8.9	9.0	7.6	8.0	7.8 [1]
(a) EXPRESSED AS A PERCENTAGE OF (b)	63.4	92.0	113.7	118.7	121.0	122.4	122.4	113.3	101.3	77.5	43.5

CHILDREN DESIGNATED AS 'SCHOLARS IN THE CENSUS FOR HANLEY 1871: BY AGE [2]

1. The decline in the size of the year groups reflects the pattern of growth in Hanley and in particular the rapid influx of people during the 1860's. It is important to make allowances for this pattern.
2. Census returns for Hanley, 1871.

sets in only at this point. This, in turn, suggests that the lower figures relating to children on the registers on a given day were the product, not of pupils leaving to take up permanent employment, but of increasing irregularity of attendance possibly allied to more frequent departures and readmissions. Complex or not, the national statistics suggest that this pattern was remarkably stable and that in the space of fifteen years since 1855 - years which saw massive extensions of factory legislation, aimed in part at least at encouraging schooling among children over the age of ten - the major change was a large influx of very young children into the schools, often with highly dubious results. It is when this trend is placed alongside the statistics representing the duration of stay at a single school that the true seriousness of the situation emerges. Then, and only then does the basic instability of schooling in Victorian England become apparent, with the majority of children starting school before the age of five but less than a quarter of them putting in unbroken attendance at the same school for more than three years. [1]

This was the most significant problem inherited by the Hanley School Board in 1871. It was a problem which had dominated the campaign for educational reform prior to that date and it was to remain the single most important issue on the agenda of the School Board during its thirty year life - a period which was to see early failure transformed into triumphant success, with average attendances per pupil soaring from below forty percent in 1870 to over

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1. In this instance unbroken attendance simply means being continuously represented on the register of a single school.

ninety percent in 1900. When the School Board first took office, however, this transformation lay far in the future and the problem of enforcing regular attendance must, at that time, have seemed practically insoluble. The Elementary Education Act offered little help, inviting, as it did, newly elected School Boards to draw up local bye-laws which could require parents to send to school all children between the ages of five and thirteen (unless special exceptions had been obtained) and granting to the School Boards powers to impose penalties if such bye-laws were ignored. [1] The Hanley School Board responded immediately and the following bye-laws were submitted to the Committee of Council on Education for approval:

1. Every child not less than five years of age nor more than thirteen years of age, residing within the Borough shall attend school within the Borough.

2. Every child shall attend for the whole time for which the school is open for the instruction of children in secular subjects.

3. Any child between the ages of ten and thirteen, on reaching the fifth standard shall be exempt fro m attending school and any child who reaches the fourth standard shall be obliged to attend no more than ten hours per week.

4. A child shall not be required to attend if:

   a) he is under efficient instruction elsewhere.

   b) he is prevented by sickness or unavoidable causes.

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1. The Elementary Education Act, 1871. Section 74.

c) there is no public elementary school within half a mile if under the age of seven and within one mile if above that age.

5. If the parent is unable to pay the school fees because of poverty the Board will remit the whole or part of the fees for a period to be fixed by the Board but not exceeding six months.

(The fees not to exceed 2d per week for children under the age of seven and 4d per week for children over that age). [1]

The lines of battle were thus drawn up and the targets apparently clearly defined. The main instrument of war was undoubtedly compulsion but compulsion of a kind which bore little resemblance to the direct and universal compulsion advocated by so many of the candidates in the School Board elections. Indeed so many potential loopholes remained that constant friction was virtually guaranteed and the gains, which were almost certain to be minimal could be achieved only with a maximum of unpleasantness. In the Spring of 1871, however, such problems belonged to the distant future and for the members of the School Board nothing more was required than the definition of the powers which would be available when the new code of practice had to be enforced from the 31st May onwards. These too were incorporated into the bye-laws. An officer would be appointed with powers to visit the home of any child not attending school. Records of all such visits

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1. Reports of the Committee of Council on Education 1870. 1871 [C406] xxii. 1. Appendix, Section 2. page 27.

would be kept and, if the absence was unjustifiable notice of prosecution could be served on the parents. Fourteen days grace was granted from the serving of the notice and if the absence continued proceedings would be taken. Successful prosecution would result in a fine of no more than 2/6 and no penalty (including costs) would exceed 5/-. A single officer, fines of 2/6 - hardly the stuff to strike fear into the hearts of parents as recalcitrant as those portrayed in virtually all of the contemporary reports!

It is hardly surprising, therefore, that there was little or no immediate improvement in the situation or that the School Board soon embarked up a series of administrative contortions designed to enforce regular attendance. Parents were threatened, bullied and cajoled, and pupils were subjected to alternate punishment and bribery. All to no avail; the problem remained as intractable as ever and the minutes of the Hanley School Board stand as a monument to almost total failure.

18th October 1871 - Resolved: to place an advert in the Staffordshire Sentinel and Staffordshire Advertiser: "The Board requires the services of an efficient Officer to carry out the provisions of the Bye-laws of the said Board. The duties of the officer will be to keep an accurate register of all children in the borough under the age of 13 and to report to the Board all between the ages of five and thirteen years who do not attend school and to serve

notices on the parents and give evidence at any proceedings for non-compliance with the Bye-laws and generally act under the direction of the Board in carrying into effect the Bye-laws.

22 November 1871 - Mr Chaffings appointed School Board Officer.

21 February 1872 - Resolved that Mr Chaffings should visit two or three of the worst streets in each district (to be selected by himself) and to report back to the Board.

21 August 1872 - Report on attendance in the Shelton district. 216 houses visited.

20 November 1872 - Resolved that the officer write to the principal teacher of each school where a deficiency of attendance exists and request them to make a report containing all the information in their power to give so as to enable the Board to deal with such deficiencies.

18 December 1872 - a second School Board Officer appointed at the salary of £1.0.0 per week.

18 December 1872 - Resolved that the members of the Board visit in their collective capacity each of the schools under their care at least twice during the year (this was a response to the attendance problem).

19 March - Resolved that registers be marked with a dot for present/Blank for absent.

- Resolved that when an officer issues a notice of attendance, the parent to be informed that by his own statement he has not complied with the bye-laws and, as to the serving of the notice, the officer knocked at the door and, receiving no answer, his only alternative was to put it under the door.

16 April 1873 - Resolved: registers to be marked with 'a' for absence instead of a blank.

21 January 1874 - First meeting of the New Board.

18 February 1874 - Resolved: The Watch Committee of the Town Council be requested to instruct the police to bring to the School Board Officer all children of school age caught on the Pit Banks during school hours.

18 November 1874 - Problem of the lowest class of poor children raised and methods of dealing with them discussed.

- Proceedings to be taken against a selection of families in arrears.

17 June 1875 - Resolved: That Reward Cards be obtained for children who attend schools under the Board 420 times and upwards during each year ending March 31st. [1]

15 July 1875 - Problem of who should pay for these

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1. Minutes of the Hanley School Board.

and other prizes discussed.

So much effort; so little to show for it. The grand ideal of universal education was lost in the minutiae of administrative detail, and school board after school board passed through the same cycle of enthusiastic battle inevitably merging into a resigned acceptance of a situation which had existed for as long as any of them could remember and which seemed likely to continue into the foreseeable future. In fact, it was a situation which was beyond the powers of local legislation to reform, and change, when it did come was the result of national legislation designed, initially at least, to close the remaining loopholes in the law but eventually, after 1891, to provide a system of universal, free education.

The School Board's pre-occupation with attendance pales into insignificance when compared with that displayed by the schools. Here idealism had been an early casualty of a system which placed great emphasis on attendance and then rendered it more difficult to achieve by charging parents a weekly fee for every child at school. The concept of fee paying in schools was one of the pillars of the English education system throughout the nineteenth century. The Report on the State of Education in 1834 accepted the voluntary principle in the financing of education and recommended that, while grant aid should be continued for the establishment of new schools, it should not be made available for the day to day running of them. These continuing expenses must be met by voluntary contributions and by small payments from parents - payments which would, in addition to raising money, make education "more valued"

"but which would not prevent even the poorest classes from attending school". [1]

The Newcastle Report of 1861 accepted this principle and extended its application. Free compulsory education was rejected and, while it was suggested that grant aid should be extended, such grants were to be based on the number of pupils attending school and the scholastic achievement of these pupils. When these recommendations eventually appeared in the Revised Code of 1862, the concept of fee paying was firmly established as was the linking of grant aid to the results achieved in examination by the individual school. These grants were to include:

"a) The sum of 4s 0d per scholar .... at morning and afternoon meetings of their school and 2s 6d .... at evening meetings of their school.

b) For every scholar who has attended more than 200 morning and afternoon meetings of their school:

i) if more than six years of age, 8s 0d subject to examination.

ii) if under six years of age, 6s 8d subject to a report by the inspector that such children are instructed suitably to their age and in a manner not to interfere with the instruction of the older children". [2]

The emphasis placed on the payment of fees, on total attendance and on examination results (which were, of course, very dependent on regular attendance) elevated these aspects of school life to an important position in the

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1. Report on the Parliamentary Committee on the State of Education, 1834. Parliamentary Paper No. 62. 1835.
2. Reports of the Committee of Council on Education 1862. 1862 [3007] xlii. 1.

organisation of the school and heightened the tensions brought on by absenteeism. Such tensions were naturally greatest in areas like Hanley where the population was largely working class and where poverty was widespread, and the effect on the schools of the town is well documented in the log books.

Any hopes that the Elementary Education Bill would improve the situation were quickly dashed for, to meet the expenses likely to be incurred by the school boards in providing new schools and to extend grant aid to cover part of the running costs of both voluntary and Board schools, revenue was to be raised from three sources - "about one third from the parents, one third out of public taxes, and one third out of local funds (where the local funds are not raised by public subscription the rates will come into action)". [1] Once again, in keeping with the Revised Code of 1862, grants were to depend upon attendances at the school and the success of pupils in examinations. Parental contributions were regarded as important not only because they provided a valuable source of income for the schools but also because they were thought to raise the esteem of education in the eyes of the public. And to suggest their abolition was in the words of Forster, "not only unnecessary but mischievous". [2] By accepting a scheme based upon fee paying and payment by results, the Act perpetuated the tensions caused by the Revised Code and placed an intolerable burden on the teachers in the

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1. Speech by W. E Forster in the House of Commons: 17 February, 1870.
2. Ibid.

schools, who found the enforcement of these two aspects of the system to be difficult and, if carried to their logical conclusion, to be counter-productive. In such circumstances it is hardly surprising that here the major pre-occupation was with the causes of absenteeism.

FACTORS INFLUENCING ATTENDANCE

From the school log books it is possible to identify several factors which influenced school attendance. Among these were the weather, sickness, the social life of the town, the need to pay fees and underlying all four, the general poverty of the area, particularly during trade depressions and strikes.

1. THE WEATHER

The effect of inclement weather on attendance is a recurring theme in the log books. It was particularly significant in infant schools but its effects were felt in all departments.

Before examining the significance of this, however, it is important to distinguish the effect of random elements such as snow storms from the general seasonal trend. Almost all of the schools in Hanley show much higher attendances in the summer than in the winter and it is tempting to deduce that climatic factors caused this. Unfortunately the situation is not quite as clear as it may appear. For, although winter conditions probably did help to depress attendances, it is important to remember that, given the movement of population into and out of the area and given the uncertain and often haphazard rules relating to enrolment, the numbers on the registers

of the schools tended to build up gradually during the year. This trend was particularly clear in schools which were not yet filled to capacity and could therefore, accept new pupils at virtually any time. At Northwood Girls school in 1864 for example the weekly average attendance rose from 53 on November 11, at the beginning of the school year to 106 during the following May - an increase which cannot be explained in terms of improved regularity of attendances but which must have reflected a rise in the numbers on the register. Towards the end of the decade, however, all of the schools in Northwood were under considerable pressure and the changes in both enrolment and attendance were less pronounced. Under these circumstances it is often difficult to distinguish seasonal trends from the effects of sickness which was usually higher during the winter than during the summer.

Having said this, however, particularly severe winters could, and did depress weekly average attendances. This can be seen from the statistics available for Northwood Boys' school during the winter of 1867-68:

	Weekly Average	
27 November 1867	- 170	
29 November	- 166	
2 December	- 152	Severe frost and snow.
9 December	- 146	Severe weather continues.
19 December	- 141	More snow.
HOLIDAY		
10 January	- 152	Cold weather continuing.
17 January	- 158	
24 January	- 159	

31 January - 160

7 February - 166

The patterns which emerge are fairly typical. Attendance fell offrapidly with the first snow falls and remained low throughout the severe weather. Milder weather, when it came produced a slow recovery and it was two months before attendances regained the levels seen before the initial snowstorms.

Average figures such as these can be misleading because they tend to disguise the importance of the spasmodic effect of the weather on attendance. A dip of ten percent in the weekly average may in fact be the result of very heavy absenteeism on one or two days of particularly bad weather. For example the weekly average of 142.8 for 21 January 1870 at Northwood Infants' School (compared with 154.7 for the previous week) included two attendances of 130 when the weather was particularly severe. It was not only snowfalls which disrupted attendances, although they were perhaps most significant. Heavy rainstorms at opportune moments during the day could prevent children, particularly younger children, leaving for school. So much so that on 20 May 1868 the log book of Hanley National Boys' School reads:

"Rained in torrents in the forenoon. Never found so many boys absent. Decided not to keep school. Fine at mid-day and 199 present during the afternoon. (the average for that week was 199 compared with 211 for the previous week).

The impact of weather on attendance was greatest during the winter although there are indications in the log book that very hot weather could reduce attendance,

particularly in schools which were overcrowded and poorly ventilated. It is, however, difficult to assess the full scale of the problem from the subjective accounts of the various teachers and cross reference between log books does little to help. A storm which allegedly decimated the population of one school hardly merits a mention in the log book of another. For example, the rain storm which caused Hanley Boys' school to close for half a day produced a morning attendance of 69 at Northwood Infants' (the morning attendance on the previous Monday had been 146) but passed without comment in eight other log books. Sometimes such unusual behaviour may be attributed to the different characteristics of Infant and Girls' schools which appear to have been more susceptible than Boys schools to the influence of the weather, but it may also be due to the character and attitude of different teachers. Some of these teachers may have regarded with scepticism their pupils' response to adverse weather conditions but none of them went so far as to openly state, as did the master of the Board School in a nearby village, that "The weather is again bad and many children away. An excuse for absence is afforded by the weather and an excuse is all that one half of the parents are on the look out for". [1]

2. SICKNESS

The incidence of disease among children in Hanley is alarming to our modern eyes and, in the log

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1. Log book: Silverdale Board School, Boys Department 12 March, 1888.

books, sickness ranks as the major cause of absence. Scarcely a year passed without the outbreak of one disease or another and in some school years - 1864-65 for example - as many as five outbreaks occurred. Assuming that only serious outbreaks would merit a mention in the log book and that minor outbreaks occured along with coughs and colds in apparently healthy years, the picture which emerges is disturbing. In less than a decade, from 1862 to 1870, there were no fewer than five outbreaks of measles, four of scarlet fever and three of whooping cough, many of them reaching epidemic proportions. Chicken pox and mumps were also common but the outbreaks had a less serious effect on attendance, and there were occasional outbreaks of smallpox, typhoid and diphtheria - three major killers.

Reasons for such a high incidence of disease are not difficult to find. During the 1860's the pottery towns were booming and Hanley, its population swollen by immigrants, was growing more rapidly than its physical resources. Houses were built as quickly and as cheaply as possible, usually in the form of terraces or courts, often with communal toilets and washing facilities. Mains water had been introduced before 1850 but some parts of the town still depended upon wells for their water and these supplies were easily polluted. Sanitation was equally primitive and the communal disposal pits were breeding grounds for disease, as were the refuse dumps which were often situated near to houses. Add to this the poverty and malnutrition which undoubtedly existed, particularly in times of economic hardship, and it is not surprising that once an outbreak occurred, the disease spread like wildfire through this overcrowded and

unhygienic community.

Bethesda Boys' School

16 January 1863: The illness among scholars is very severe. In the first section two boys and four girls are absent on account of sickness; in the second section one boy and four girls; in the third section seven boys and one girl; in the Infants thirteen boys and four girls (and one dead - a boy), making a total of thirty six absent through illness and one death.

In an attempt to stem these recurring waves of sickness, the schools embarked upon their own hygiene programmes, usually at the instigation of individual teachers.

Northwood Boys' School

24 May 1866: Lecture on cleanliness. Threatened to dismiss Gratton and Rowley if they persist in coming to school so untidy.

Bethesda Boys' School

8th January 1868: Addressed the school concerning the slovenly appearance of many boys and the very dirty hands and faces of others.

These problems intensified when the first half timers reached.the schools during the late autumn of 1864. These children, arriving straight from the factory or workshop, were often indescribably dirty and, within a year stronger measures were proposed.

Hanley National Boys' School

2 October 1865: Some of the half timers came so filthy that Mr Jervis and I agreed to send them back to make themselves tidy. Had a good effect.

Good effect or not, it was not long before more strenuous efforts needed to be taken and it was not uncommon for children to be washed on the school premises. Indeed at one stage a barber was employed to cut the clay out of the hair of some half timers. Nevertheless efforts such as these could have but little effect and once out of school the children quickly reverted to their original condition.

The schools themselves were hardly in a position to develop an awareness of hygiene. Some, most notably those in the Northwood area, were grossly overcrowded; all were illequipped. Toilets and washing facilities were woefully neglected and there were serious problems in heating the schools in the winter and ventilating them during the summer. In such conditions the spread of disease was difficult to prevent and the schools were forced to resort to the most primitive and drastic measures of control.

Northwood Boys' School

27 March 1865: The smallpox is very prevalent in Northwood and neighbourhood. Refused to admit a boy into school today because his brother is sick of them.

Initially applied only in the case of the most serious diseases, such measures were later introduced in the case of measles and towards the end of the century this produced massive reductions in attendance and even the closure of schools. The epidemic of 1888-1889, which is particularly well documented, illustrates this effect. Measles appeared in the middle of October and within three weeks attendance at Broome Street Infant School had collapsed from a weekly average of 89% to one of 71%. At this point

		BROOM ST. INFANTS (298 ON ROLL)	HANLEY R. C. GIRLS
October	12	265	107
	19	242	107
	26	214	103
November	2	School Closed	89
	9		84
	16		75
	23		75
	30		73
December	7		70
	14		62
	21		School Closed
	28		
January	4		
	11		
	18		
	25		
February	1		
	8	188	
	15	191	71
	22	219	85
March	1	248	96
	8	229	89

ATTENDANCE AT TWO HANLEY SCHOOLS

1888-1889

the school was closed and when it reopened three months later attendances were even lower. In fact recovery was remarkably slow and it was August before the original attendance levels were achieved. At the Roman Catholic Girls' School on the opposite side of the town the decline in attendance was much slower, the closure, when it came, much shorter, and the recovery more rapid. These figures demonstrate in varying degrees the characteristic effects of the disease when it reached epidemic proportions. As might be expected, infant schools suffered most since the children in them were less likely to have come into contact with the disease and to have built up an immunity to it. In areas which were badly affected the collapse of attendance was rapid and recovery slow. And, perhaps most interesting, the effects of the disease tended to vary considerably over very short distances. [1]

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1. These effects can be seen more clearly in school board areas which did not operate a closure policy. In the North Staffordshire village of Silverdale, for example, which is some five miles to the west of Hanley and which came under the jurisdiction of the Wolstanton School Board, the schools remained open during the same epidemic and attendance statistics are available for three of the six school departments serving the village. The major trends mentioned above emerge quite clearly and it is striking that the epidemic peaked at different times in the two schools - a reflection perhaps of geographical differences in their catchment areas.

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The figures also demonstrate that draconian measures were indeed necessary for measles, when it did reach epidemic proportions could disrupt not only the schools but the neighbourhoods in which they were situated. Of the diseases prevalent in the schools at the time, however, only measles was likely to have such an effect. Whooping cough, scarlet fever and chicken pox could, and did become widespread but, even at their most virulent, they rarely depressed attendances by more than ten percent.

It is perhaps the apparent virulence of these diseases which is most striking to modern observers. Deaths from measles, whooping cough and scarlet fever were comparatively common, particularly among young children, and serious after-effects were even more common. This can be deduced from the lists of exemptions from examinations included in some log books which show that eye and ear infections following measles ranked third behind imbecility and

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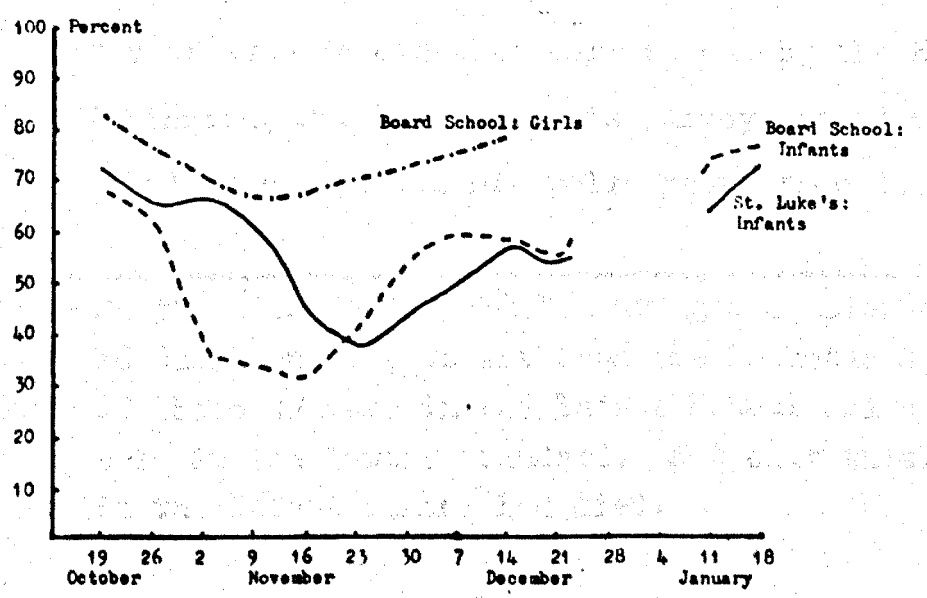
(Footnote continued from page 282)

The Effect on Attendances of the Measles' Epidemic: 1888 - 1889



and parental neglect as causes for excuse.

The effect of epidemics on schools was obviously serious. Incidence of disease was naturally greatest among young children - the older children had all too often been attacked and built up immunity. For this reason Infant schools and the lower standards of Boys and Girls schools suffered most. [1] This is true not only of the extent of the attacks but also of their severity, and the death rate among younger children was higher than among the older pupils. Furthermore, disruption was increased by the custom of sending home all children from infected homes, thus affecting a much larger number than was actually afflicted by the disease.

There is also evidence in the log books, both from written accounts and from attendance statistics, that the incidence of disease was higher during the winter than during the summer. As can be seen from the table on page 285, however, the actual distribution of outbreaks of the main epidemic diseases throughout the school year was fairly even, with seven outbreaks during the summer term compared with five in the autumn and nine in the spring term. Support for such a pattern can be drawn from a survey of zymotic diseases carried out by the Medical Officer of Islington, Dr. Ballard. His survey, based on statistics compiled over a period of twelve years from 1857-1868,

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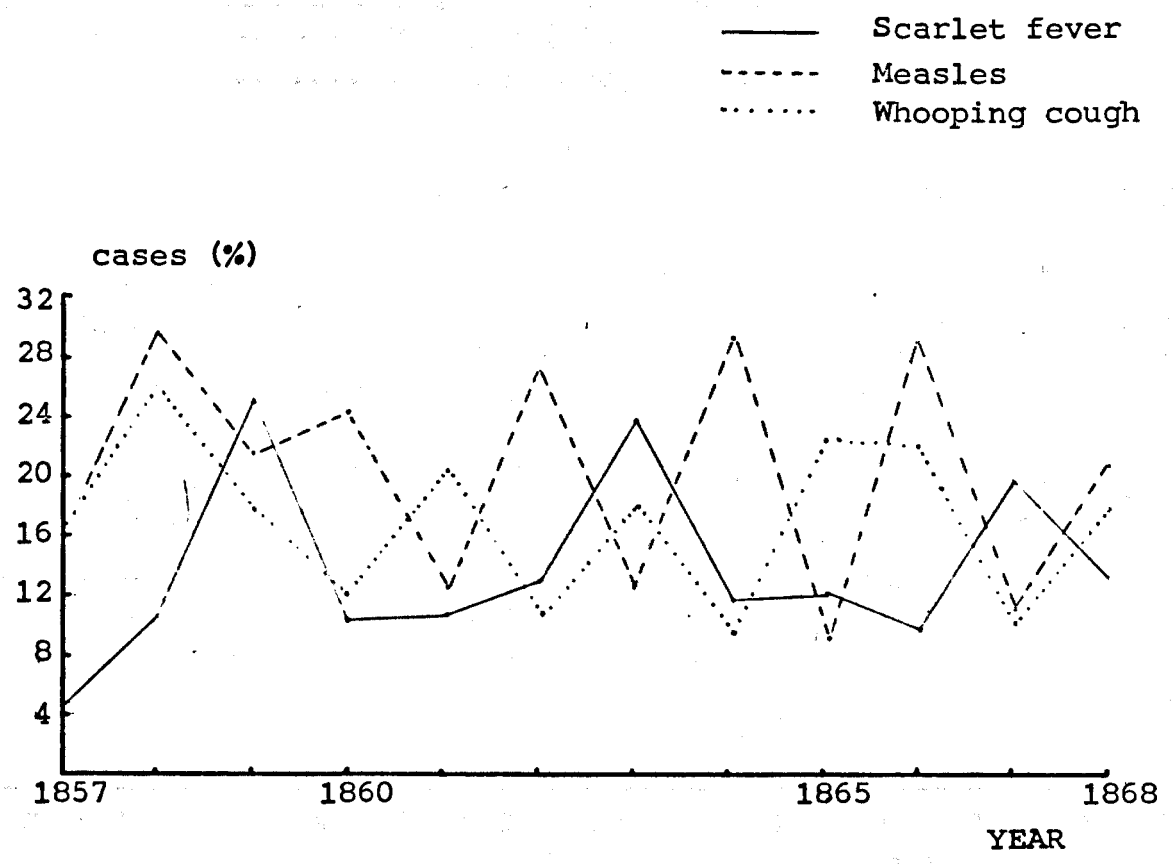
1. On the 16th January 1863, during a measles epidemic, 36 children were absent from the Bethesda Schools. Of these 17 were in the Infant School and a further 8 were in the lowest standard. Not only this, one boy in the Infant school had died.

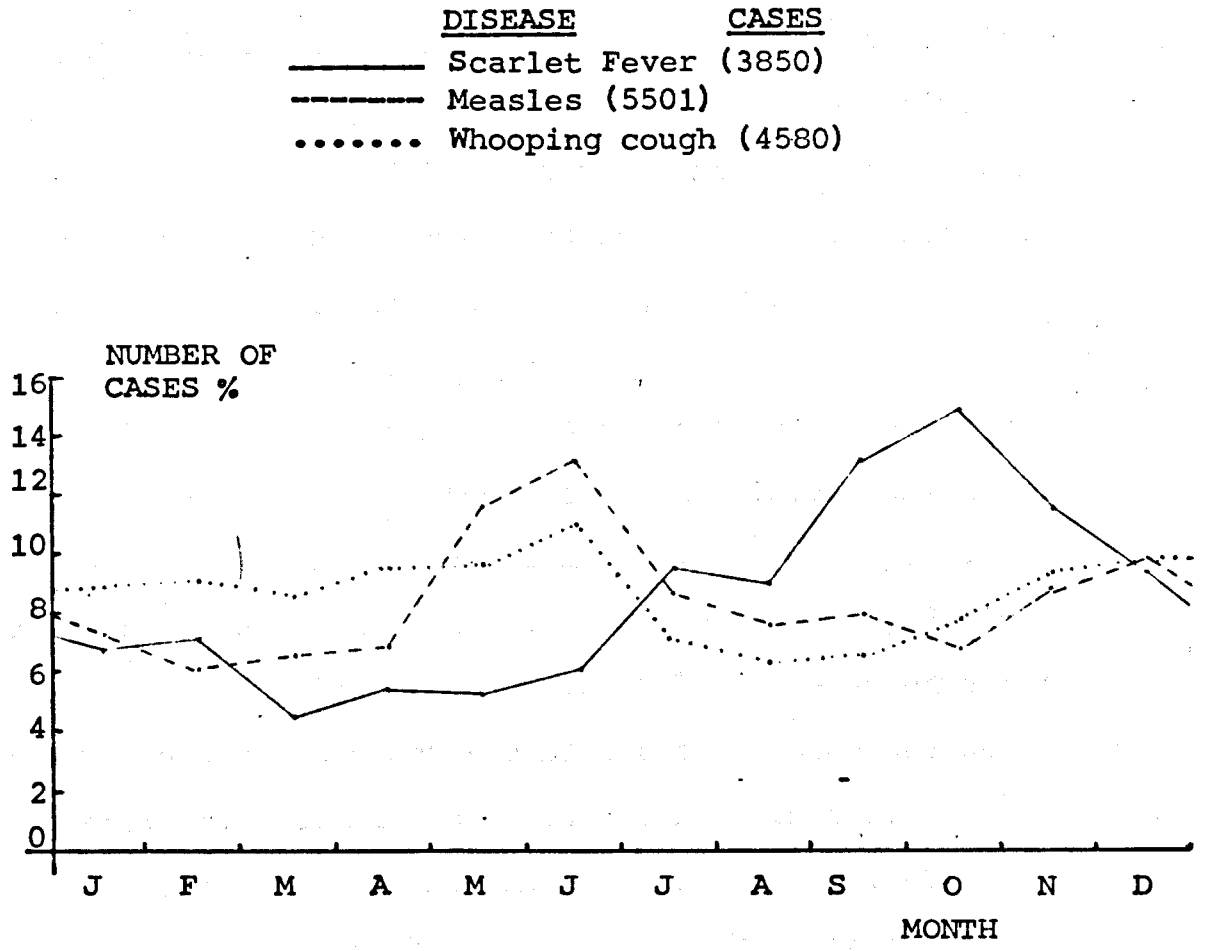
	SPRING	SUMMER	AUTUMN
1862			Measles
1863	Measles Scarlet Fever	Whooping cough	
1864	Fever (Unspecified)	Fever (Unspecified)	Measles
1865	Small Pox	Measles Whooping cough	-
1866	Scarlet Fever	-	Measles
1867	Whooping cough	Fever (Unspecified)	-
1868	Measles Chicken Pox	Fever (Unspecified)	Measles
1869	Scarlet Fever		
1870		Fever (Unspecified)	Measles

INCIDENCE OF EPIDEMIC DISEASES IN HANLEY SCHOOLS: 1862-1870 (BY SCHOOL TERM).

showed a high incidence of such diseases throughout the year but with definite peaks in early summer and during the autumn - peaks which were confirmed by the two other major groups of illnesses, namely respiratory diseases which were more common during the winter and 'diarrhoeal infections' which were most prevalent during the summer. It also confirms the speed at which epidemics built up, the slowness of their decline and their localised nature - all points which emerge clearly from the log book accounts.



INCIDENCE OF DISEASE IN ISLINGTON (By year)



INCIDENCE OF DISEASE IN ISLINGTON (By month)

1857-1868

Finally, the survey shows the periodic pattern of the diseases which relates to the build up of immunity after a major outbreak. For example measles outbreaks tended to reach epidemic proportions every second year, while scarlet fever showed a longer cycle with three years between major epidemics.

Given such a pattern, how can the differential effects of disease on summer and winter attendances be explained? It is, of course, possible that the winter epidemics were more severe than those which occurred during the summer, although it must be pointed out that the evidence from Islington does not support such a hypothesis. A second possibility - and one which is supported by the records in the log books - is that measles, the disease which had the most serious effect on attendance, was most prevalent during the late autumn and early winter and an epidemic starting at that time of the year could cause absenteeism for many months. Support for such a conclusion can be drawn from Dr. Ballard's statistics which indicate a definite peak in December. The same figures do, however, show an even larger peak in June - a peak which is not reflected in the school records. This failure to record summer epidemics is perhaps understandable since their effects would extend into the main holiday period and might, therefore be lost in the annual trend in attendance. It is also possibly a reflection of the hidden effects of illness on absenteeism, in particular the provision of a new excuse for absence - an excuse which would be more welcome during the winter than in the summer.

"Attendance very slack. Partly owing to pence and partly

to a great amount of sickness in the village. Those parents who gave the most trouble in other ways always avail themselves of the plea. Their excuse is 'they believe Johnny is sickening for the fever, he has such a red face' or 'Billy cannot eat much, they are afraid he will be ill'. And, for no better cause; they keep their children away for a week or a fortnight". [1]

3. SOCIAL EVENTS

Official holidays in the schools in Hanley in the 1860's were comparatively short - no more than six weeks in the year, comprising usually a fortnight at Christmas, one week at Whitsuntide and about three weeks in August - but, in addition to this meagre allocation, the school children enjoyed a melée of day and half day holidays which grew out of the social life of the town. During the summer in particular scarcely a week went by without a holiday being granted for one cause or another, and, if a holiday was not granted it was taken, disrupting the school and reducing teachers to paroxisms of anger and disgust.

Northwood Girls' School

28 April 1863: Numbers exceedingly low. A holiday in the early part of the week seems undesirable and must be avoided in the future. It has not been worthwhile opening the school this week.

Reasons for such holidays or the mass absenteeism which occurred if holidays were not granted were legion, many of them simply reflecting the irregular working habits of the adult population which were so forthrightly condemned

1. Log Book: Silverdale Board School, Boys Department. 5 December, 1884.

by the factory inspectors.

"Potters, like other folk, expect some holidays at Easter, Whitsuntide and Christmas; but beyond this they have others peculiar to themselves viz. the hiring week at Martinmas, the week of Stoke Wakes and a week mostly in connection with 'Wakes' elsewhere. Indeed the season of wakes continues from spring to autumn; these festivities occurring in succession in one or other towns of the neighbourhood. Consequently the lovers of pleasure, excitement and idleness find ample scope to gratify themselves and are not slow to avail themselves of it". [1]

Given such an example it is hardly surprising that the schools faced a never ending struggle against absenteeism which verged on the casual or that a sliding scale of responses was devised.

At one end of this scale were the semi-official events which took place each year, which were acknowledged by the schools and for which holidays were granted. Typical of such events were the 'wakes' celebrations, particularly those at Hanley which were the highlight of the social year.

"Great preparations are being made for the wakes which commence today. Caravans crowd the Market Square and block up the thoroughfares; hobby horses, swaying omnibuses and steam engines cover the Crown Bank; toy, ham sandwich, fruit and other stalls, in skeleton condition, throng the streets; and mural announcements of marionettes and other attractions abound. To the Royal Pottery Music Hall,

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1. Reports of the Inspectors of Factories 31 October, 1866. 1867 [3794] xvi. 327. page 436.

Mr Windley has brought an indefinite number of people who professionally risk their lives and limbs; vocalists; pantomimists, wire walkers, jugglers and dancers, including the local favourites Miss Wibraham and Miss Green". [1]
Who could resist such temptations? How unfortunate that they occurred in August when the schools were already on holiday. Undaunted the school children of Hanley found other, less commendable sources of entertainment, usually in the neighbouring towns.

Northwood Boys' School

29 June 1863: Burslem Wakes this week - offering a great temptation to children. David Brabin played truant, went to Burslem and spent his school pence. He was soundly punished by his parents.

To the Wakes could be added several fetes, the festivities of the social, charitable and temperance organisations in the town, and, particularly at the Roman Catholic Schools, several religious festivals.

Other annual events were not granted such official recognition but they were celebrated unofficially by the majority of the population, including the school children. At no time was this more clearly demonstrated than at Martinmas - the day in November when the pottery masters traditionally hired their labour for the coming year. The men "wetted the bargain until it was drenched through and through"; [2] the children joined in the celebrations by staying away from school.

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1. Staffordshire Sentinel: 6 August, 1870.
2. Reports of the Inspectors of Factories 31 October, 1864. 1865 [3473] xx. 429. page 523.

St Mary's and St Patrick's Roman Catholic School

9 November 1863: Attendance fair in the morning - bad in the afternoon, being Martinmas Monday, holiday time in the Potteries.

So serious could the situation become that some schools decided to give up the battle and to grant a holiday.

Hanley National Boys' School

6 November 1863: Broke up for a week's holiday, being Martinmas. Martinmas being the usual time for potters engaging apprentices, many of the senior boys have left to go to business which will tell against the school on inspection.

Elsewhere teachers simply railed against the disruption caused but accepted drastically lower attendances as being unavoidable. The weekly average attendances speak for themselves.

	1863		
	6 November	13 November	30 November
Northwood Boys'	183	165	182
Hanley National Boys'	206	183	201

A reduction of some ten percent was typical and this was largely the product of mass absenteeism on one day - Martinmas Monday. The situation at Whitsuntide was very similar. In the early years of the decade schools fought a losing battle to retain pupils in the face of a wide range of unfair counter-attractions.

Northwood Boys' School

27 May 1863: Very thin attendance; probably caused by it being holiday time (Whitsuntide) - cheap trips, volunteer

reviews, fine weather etc.
Later they bowed to the inevitable and a holiday was granted. Martinmas and Whitsuntide may have been the major cause of disruption in the Potteries of the 1860's but they were ably supported by a positive galaxy of supporting events. Burslem Wakes, Tunstall Wakes, Newcastle Wakes, Bucknall Races - all conspired to lower attendances on the same dates each year and to produce among teachers an air of furious resignation.

In addition to these annual events there was a vast number of irregular occurrences which added to the disruption. Some were so important as to warrant the granting of a holiday.

Northwood Boys' School

24 February 1863: Thin school. Inauguration of the Wedgwood Statue at Stoke. Dismissed school at 10.45 am to see procession. General holiday.

Northwood Girls' School

10 March 1863: Marriage of the Prince of Wales - a general holiday.

Other events were perhaps less important in the eyes of the establishment but so pressing in the eyes of the local population that the granting of a holiday was almost inevitable.

St Mary's and St Patrick's Girls' and Infants' School

25 June 1866: The Prince of Wales lays the foundation stone of the new Infirmary. Attendance being remarkably poor in the morning, the manager gave a half holiday.

Northwood Boys' School

11 July 1865: Nomination day of M.P. candidates at Hanley. Nearly forsaken by the boys.

12 July 1865: Election day. Gave holiday in the afternoon.

Any school foolhardy enough to refuse the granting of holidays on such occasions could expect massive absenteeism.

Northwood Boys' School

19 September 1864: Ninety five boys present in the morning and only five in the afternoon! The rest gone to the performance of the circus.

Social events such as these had a most serious effect than is first apparent. Attendances during weeks interrupted by celebrations tended to be poor and recovery from them tended to be slow. Before the event children often stayed away simply to avoid paying school fees.

St Mary's and St Patrick's Girls' and Infants' School

25 July 1864: Poor attendance, probably on account of the approaching Wakes - as children stay at home to save their school money and clean out their houses for the coming festivities.

Afterwards a day or two's rest was often necessary to recover from the exertions.

Northwood Boys' School

19 July 1864: School treat. Assembled at 2pm to spend the afternoon in Mr Buxton's field. Also provided with tea and plum cake.

20 July 1864: Many boys recovering from yesterday's excessive play.

Attempts were made to stem this rising tide of disruption but to no avail. Punishment had little or no effect and bribery proved little more successful. Some teachers tried to turn the tide to their own advantage by using school treats as a reward for good attendance but success was only

temporary.

Northwood Girls' School

2 March 1863: A very full school. Tea party in prospect tomorrow week.

6 March 1863: A full school throughout the week.

9 March 1863: Children very excited about the treat.

10 March 1863: Marriage of the Prince of Wales.

11 March 1863: A poor school after yesterday's celebration.

4. HOLIDAYS

The logical extension of these patterns of behaviour is to be seen in the trends in attendance which became apparent during both the school week and the school term; the beginning and end of each often being marked by an increase in absenteeism!

Given the children's response to any break in routine, it is hardly surprising that holidays could produce such an effect but, this effect was often far from uniform (see page 296). For example, in Northwood the decline in attendance in the week preceding the holiday was striking while at the Hanley National School, less than half a mile away, the trend was reversed. There is also evidence that the lowering of attendance was more marked during the winter than in the summer - a trend clearly seen at Northwood (although care must be taken in interpreting these figures since, for reasons best known to the masters and managers, the school remained open until Christmas Eve). This is a point which, in general may go some way towards explaining the variations in behaviour between schools, since some teachers obviously made great efforts to provide incentives for pupils to attend until the very last minute

	1868									1869		
	17/7	24/7	31/7		21/8	4/12	11/12	18/12	25/12	1/1	8/1	15/1
Northwood Boys School	174	186	151*	Holiday	174	191	190	184	143*	Holiday	Holiday	Extra Holiday
Hanley National School	184	196*	Holidays		186	200	206*		Holidays		167	173

Weekly Average Attendances (* week preceding the holiday).

whereas others appear to have simply ignored the problem. This can be clearly seen on page 296 here the holidays in two neighbouring Church of England schools have managed to become out of step. As a result boys in Northwood were expected to attend school when acquaintances had already broken up. In these circumstances it is hardly surprising that absenteeism increased or that the teachers were eventually forced to seek a standardisation of holidays.

Northwood National Boys' School

15 July 1869: Mr Jervis (the master at Hanley National School) called to propose that holidays should take place at the same time in all National Schools in Hanley so that there might be uniformity. A meeting of teachers to be held.

Overall, however, it is obvious that holidays provided yet another excuse for extended absence and, as one irate master commented, "an excuse is all that one half of the parents are on the look out for". [1] In fact, this same master summed up the situation to perfection when, in bemoaning the declining attendances in the days leading up to the Christmas holidays, he wrote: "The 'ancients' are commencing their periodic illnesses which they invariably develop the week before holidays and the week after, which makes their vacation four or five weeks as the case may be". [2]

If the disruptive effect of holidays can be readily appreciated, it is less easy to understand the trends which

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1. Log Book: Silverdale Board School, Boys Department. 12 March, 1888.
2. Ibid 14 December, 1883.

appear in attendances during the week. One striking characteristic - the low level of attendance on Friday afternoons was pointed out by Mr Scotock, Her Majesty's Inspector of British and other non-Church schools in the Midlands in 1869. [1] Quoting the situation in the British School at Stafford, he indicated that of the 42 Friday afternoon openings, 28 were the lowest attendances of the week. The daily averages indicate the extent of this problem - a problem which was equally prevalent in the Potteries. Reasons for this pattern are not easy to find although at girls' schools it was generally accepted that Friday was 'cleaning day' and that older girls would be kept at home. [3] In spite of this many mistresses encouraged non-attendance by holding sewing classes on Friday afternoon - a move which was almost guaranteed to give rise to a considerable exodus.

	a.m.	p.m.
Monday	127	128.9
Tuesday	130.9	128.4
Wednesday	128.1	126.6
Thursday	129.7	121.9
Friday	122.3	112.3

Daily Averages: British School Stafford. [2]

Northwood National Girls' School

5 February 1864: Few present in my sewing class this afternoon. It has numbered forty during the week. Today not more than 25.

These were, and could only be, simple explanations for

1. Report of the Committee of Council on Education. 1869-70. 1870 [C165] xxii. 1. page 352.
2. Ibid.
3. Log Book: Northwood Girls School. 30 March, 1865.

complex pattern of behaviour. Similarly, the relatively low attendances on Monday mornings were attributed variously to parental indifference, a desire to avoid paying fees and, not unreasonably, the desire to follow parental example. For, according to the Factory Inspectors the men of the Potteries were devoted to the worship of St. Monday.

"How many excuses do the drunkards make for the holy days they keep. Saint Monday has been a very patron amongst them and is, by some absolutely idolised. On this day occur all the weekly rabbit races, dog races and hop,step and jump matches for sums which, to an agricultural labourer, would be a years' maintenance or his whole family". [1]

Whatever the causes, attendances did tend to peak during the mid-week.

5. FEE PAYING AND POVERTY

Among certain sections of society in Hanley poverty was virtually endemic and references to the resulting parental neglect are found scattered throughout the log books. Occasionally the effects can be directly seen with absenteeism stemming from lack of shoes or clothes which forced children to stay at home during bad weather.

Northwood Infants' School

18 January 1867: Very small attendance. Several at home with colds, one child is away from school because he has no shoes, and another with a broken arm.

More often, however, they were expressed indirectly through

1. Reports of the Inspectors of Factories 31 October, 1864. 1865 [3473] xx. 429. page 523.

a failure to pay fees - a failure which inevitably produced conflict with the school and often led to the termination of enrolment. This was the problem which engaged the attention of teachers everywhere and which was to pre-occupy the Hanley School Board for the first twenty years of its existence. At the same time, it is important to remember that in the decade leading up to the establishment of the Board schooling was largely voluntary and that it is probable that children living in conditions of extreme poverty never even entered the schools.

Attitudes towards fee paying were far from unanimous. Among the Inspectors of Schools, for example, the general feeling was that parental contributions were essential for the day to day operation of the schools since "the object of the grant is to improve the schools and that mainly by enabling managers to attract a higher class of teacher by the offer of a higher salary. It is not intended as a reward for an inefficient performance of duty nor as a means of relieving local subscribers". [1] Even here, however, there was a disagreement and in 1868 the Inspector of Church schools in the counties of Worcester and Stafford claimed that schooling in South Staffordshire was unlikely to improve since the schools were too respectable and the fees were too high, particularly for children in the higher standards. [2] He favoured the lowering and standardisation of fees and the wider provision of free education - an argument which most teachers

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1. Report of the Committee of Council on Education 1865. 1866 [3666] xxvii. 117. page 269.
2. Report of the Committee of Council on Education 1868. 1689-9 [4051] Vol. xx. page 264.

would have undoubtedly supported. For in the schools, where the problems were experienced first hand, there was a much greater degree of unanimity and teachers generally felt that fee paying had an adverse effect on attendance. At the same time, few of them would have advocated the abolition of fees, for the Victorian ideal of self-help ran deep and the battle probably still seemed worthwhile. And battle it was bound to be in an education system which left the teachers delicately poised on the horns of a dilemma. For a typical school was dependent upon fees for between one third and one half of its income [1] and it was in the interest of the teachers to enforce the payment of fees, even at the expense of periodic absences. The bulk of the remainder of the income was derived from the government grant which was based on two main criteria - regular attendance (ie. more than 250 attendances in a year) and success in examinations which was also heavily dependent on regular attendance. The problem facing the teacher is obvious. To obtain government aid regular attendance was essential and this meant that the school was virtually forced to embark upon the intensive campaign to limit absenteeism. At the same time it was in the interests of the school to enforce fee paying - an aim which, if pursued too far, could reduce attendances and, with it, the grant.

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1. Dependence was almost total if the school was not in receipt of government grant. These 'inefficient adventure' schools were condemned by the Inspectorate but continued to flourish for several decades. For such schools the only other sources of income were fund raising efforts, usually in the churches.

And yet in the decade leading up to the Elementary Education Act it was a problem with which the schools could cope with a minimum of disruption. Only after 1870, as the degree of direct compulsion gradually increased, did the problem become so serious that the smooth running of the school was threatened and then teachers were reduced to paroxysms of impotent rage.

"It is impossible to carry on the work of the school as it should be under these circumstances. Week after week the same thing occurs. Say 50 away for pence on Monday morning, 60 on Monday afternoon, 40 or 50 Tuesday morning and, if the visitor (the School Board Officer) does not turn up, 40 more on Tuesday afternoon. Some boys are sent home five or six times in a week and in certain cases a boy has been sent back as many as ten times". [1]

Even so, the main effects of fee paying were to be clearly seen in the schools before the establishment of the School Boards and the response of the schools is equally clearly catalogued in the log books. Children were already frequently being sent home to fetch their fees and some of them obviously failed to return.

Bethesda Boys' School

10 March 1868: Found one boy truanting and another had been kept at home in consequence of being unable to pay the fee.

The more hardened built up considerable arrears and, in response to this, some teachers showed a remarkable degree

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1. Log Book: Silverdale Board School, Boys Department. 24 August, 1885.

of tolerance even in the face of considerable parental obstruction.

Northwood Boys' School

18 December 1865

Memo sent to Mrs Leese. Since 1 May her son Henry Leese has paid the following school pence:

May 1	-	4d	August 24	-	4d
May 22	-	6d	October 16	-	8d
July 3	-	6d	November 20	-	4d
			December 18	-	6d

TOTAL: 3/2 for 29 weeks schooling. In this time he ought to have paid 4/10. Hence his parents owe the school committee 1/8.

19 December 1865: His mother sent word that she does not owe the above and that she will not pay it. I returned the memo by Henry with the message to his mother that he was not to come to school until it was paid.

Note Henry Leese is a half timer and his mother rarely sent his pence without having first to be 'dunned' for it.

24 January 1866: Henry Leese readmitted. Mother promises to pay arrears.

Such sums could not help but deter parents from sending children to school for they represented a considerable proportion of the wage of a working man at a time when most workers in North Staffordshire earned as little as £1.10s.0 a week. This is an important point for it applied not only to families in arrears but also to those struggling to meet current fees. Two or three pence a week [1] may seem a small sum but it represented a significant

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1. Many schools operated a sliding scale of fees according to the standard reached. Children in lower standards

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proportion of the wage of a working man at that time and, since many families might have several children of school age the problem was that much more serious. In these circumstances it is hardly surprising that any change in the scale of fees was regarded with apprehension by the teachers or that any such change had a considerable effect on attendance.

Bethesda Boys' School

26 November 1866: Raised the school fees.

3 December 1866: Average considerably lower than last week.

31 December 1866: Heard today of a scholar having left through being allowed to go to one of the other public schools without paying school fees.

Although references such as these are numerous in the log books the overall effect of fee paying on attendance is difficult to establish for, while some parents may have used fee paying as an excuse for keeping their children at home, many more were too proud to plead poverty and probably used other excuses for their children's absence. The latter

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(Footnote continued from page 303)

typically paid 2d, those in higher standards 4d. There was however, considerable variation in the level of fees and they could be as high as 6d.

Hanley Boys' School

23 September, 1864: Copy of letter from the committee that 1) Half timers will be charged 2d per week. 2) 4d per week for each child when only one from each family attends. 3) 3d for a second child. 4) 2d for every other child. Pence to be marked on the register.

is not really surprising for in the system of outdoor relief which operated at that time excusing oneself from the payment of school fees meant pleading one's case before the Guardians and few parents were prepared to face such an ordeal. [1] Even so in some schools the proportion of children from families in receipt of relief could be considerable.

Northwood Boys' School

29 March 1868: List of boys whose mothers receive parish relief (from the Stoke-upon-Trent Board of Guardians). Fees paid 2d. 29 boys involved out of 243. And the numbers could become even larger in time of hardship.

Equally difficult to assess is the effect of fee paying on parental attitudes. For, although the majority of informed opinion may have shared the view of Mr J. R. Byrne, Her Majesty's Inspector of Schools in Gloucestershire, that fees were essential on three counts - first, they provided an income for the schools; second, they raised the value of education in the eyes of the general populace; and third they improved regularity of attendance since each absence meant some degree of financial loss for the family concerned - a large number of parents did not. [2] This was hardly

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1. According to the ratebooks there were 77 families with school age children receiving relief (most of these families of widows) and 54 of them actually sent children to school. This did in fact represent 4.4% of school age children in the town.
2. Report of the Committee of Council on Education 1864. 1865 [3538] xlii. 1. page 36.

surprising, particularly in a town like Hanley where rapid industrialisation had led to a massive influx of population, most of it ill-educated or uneducated and some of it antipathetic towards education. For the schools the most obvious effect of this growth was to be seen in the passage through the system of large numbers of children who were, even by the standards of the day, very poorly educated. This was a constant source of irritation for teachers who could ill afford any obstacle to the attainment of successful results in the examinations but, like the problem of integrating the immigrants into the community life of the town, it was likely to be a comparatively short lived problem and in the long term it was to be the negative attitude of the parents which was to prove the more serious and intractable problem.

Contemporary records suggest that education held a very low place among their priorities and that in many cases attitudes went far beyond apathy.

Northwood Infant School

7 October 1869: A child has been taken away from school because its mother does not wish it to learn lessons, saying she only sent it out of the way not to learn.

Few parents may have been prepared to be so direct but many expressed similar feelings simply by keeping their children away from school for the flimsiest of excuses - excuses which ranged from helping parents at home to running errands and finding casual employment in the neighbourhood.

Northwood Boys' School

23, November, 1864: Dr. Walker called for Henry Jackson to attend to his horse while the doctor visited his patients.

This was the crux of the problem; in industry from the age of ten or eleven upwards and at home from a much younger age, children were regarded as a cheap and useful source of labour. Parents who had themselves started work before the age of ten found it difficult to accept that their children should not do the same and this is reflected in the numerous references to children carrying food to fathers working in the mines and factories; to children carrying water from pumps and wells; and to children simply running errands or doing housework to help mothers burdened with large families. It was also reflected in the desire to place children in employment as soon as it was legally possible.

The effect of fee paying on parental attitudes is difficult to assess but there is evidence that it led to a definite hardening of negative attitudes rather than a stimulation of the positive attitudes which the Victorian philosophy of self help was designed to encourage. The teachers, faced with the problem of collecting the fees, were in little doubt about their effect.

Northwood Infants' School

17 January 1868: Much better attendance but several children are still very irregular both in attendance and in the payment of pence. I think this is the fault of the parents and it is useless punishing the children for it.

And, if the problem was serious under normal circumstances, how much worse could it become during times of economic hardship such as trade depressions or strikes. Then absenteeism increased rapidly, arrears of fees built up and organisational problems within the school mounted. The lockout which accompanied the pottery hiring at

Martinmas 1866 is a case in point.

11 November 1866

Bethesda Boys' School: Sent after absentees. A fall off in attendance of factory boys on account of the lock out.

19 November 1866

Hanley Boys' School: Attendance thin perhaps on account of the lock out among the potteries. More than one half of the factory boys were absent.

20 November 1866

Northwood Boys' School: Thin attendance especially of half time boys caused by the lock out.

Northwood Infants' School: We do not seem to have our usual numbers this week - only ninety percent.

26 November 1866

St Mary's and St Patrick's Boys' School: School pence bad.

Northwood Boys' School: Lock out ceases. Better attendance.

Northwood Infants' School: Admitted four fresh children this morning and seven others returned who had been absent for some time, their parents having had no work and, therefore, no school money.

A disruption of the normal pattern of work which lasted no more than two weeks and yet in that time the attendance of half time scholars fell off dramatically - obviously a case of no work, no school rather than the result of financial difficulty; and after ten days absenteeism was increasing among full time pupils and school fees were proving difficult to collect.

It was during major strikes, however, that hardship and poverty became widespread and attitudes towards education were clearly displayed. When the coal and iron trades were

affected - as happened in the late summer of 1879, the summer of 1883 and the autumn of 1893 - the social and economic life of the district was totally disrupted and the schools quickly felt the effects. The strike of 1883 was particularly severe, lasting, as it did, from May to September and involving both colliers and iron workers, but its catalogue of ruin was to prove typical of other strikes. Initially the marches and demonstrations, inevitably associated with such events at the time, created a series of social events which disrupted school attendance. Children accompanied parents who were involved and those who were not involved seized upon the strike as an excuse for absenteeism. Within a short time, however, the effects of the strike began to be felt and fees became difficult to collect. So rapidly did the problem grow, the School Board was called upon to intervene and a dispensation was granted excusing families involved in the strike from paying fees. Typically, however, it was suggested that arrears would have to be paid at some future date - a totally impracticable suggestion but one which frightened away some pupils and gave excuses to many others. As a result absenteeism increased, arrears accumulated, children moved from school to school to avoid payment and 'problem' parents used the strike as an excuse for non-payment whether affected or not. With the strike entering its second month and a large proportion of the population in the grips of abject poverty, a hardening of parental attitudes - only hinted at before - began to take place and schooling was put into its proper perspective. Older children were withdrawn at the first opportunity to take up part time employment and, if they were very lucky, full time employment.

Others unfortunate enough to obtain neither, were driven to begging in the streets or to entering the workhouse. And finally, of course, men began to leave the area to look for work and the schools lost many children, including some of their best pupils.

Here, in a heightened form, therefore, we can see the effect of both fee paying and poverty on the schools; effects ranging from a direct lowering of attendance to a hardening of parental attitudes towards school.

THE EFFECT OF ATTENDANCE PROBLEMS ON THE ORGANISATION OF THE SCHOOLS

Rain, snow or hail; heat or cold; measles or whooping cough; poverty or parental apathy - the list of excuses was apparently inexhaustible and the care with which they were recorded in the log books undoubtedly reflected the concern felt by teachers called upon to cope with the threat of impending chaos. And chaos it must have seemed as children appeared and disappeared, only to reappear at school a few weeks later as if nothing untoward had happened.

Bethesda Boys' School

29 November 1867: Sent a boy home today who makes a habit of coming for perhaps a day or half a day and then leaving again, so that I have admitted him no less than four or five times in the space of one year.

A degree of irregularity guaranteed to disrupt the smooth running of any school but one which pales into insignificance when compared with the efforts of a scholar at Northwood Boys School.

Northwood Boys' National School

24 April 1866: Readmitted Bellis for, I believe, the

twentieth time!

In the face of such irresponsibility teachers might be forgiven for giving up the unavailing struggle but at no time is there any suggestion that this was an option open to them. Instead they battled on and the search for a solution to this intractable problem was to occupy the talents of successive teachers in the various schools and departments in the town. These attempts are recorded in the log books and sorry reading they make both for their predictability and their lack of success.

The inevitable first resort was to that staple of all teaching practice - the judicious mixture of the carrot and the stick, with an initial emphasis on the latter. So widespread was the problem, however, that even in the Roman Catholic schools, where traditional values died hardest, caning was seen to be a debased currency and a change in emphasis became apparent.

St Mary's and St Patrick's Boys' School

19 April 1866: Some of the older boys were kept in today. It seems to have a more beneficial effect than the use of the cane..

Beneficial or not, it seems to have had no lasting effect and the search continued for the ultimate deterrent.

St Mary's and St Patrick's Boys' School

30 November 1869: Fr. Molloy visits the school. Complains about some boys not paying fees. Tells them they must go into the girls school.

Accompanying such drastic punishments was an apparently endless stream of prizes and bribes designed to reward the conscientious and to stimulate the errant.

St Mary's and St Patrick's Boys' School

17 November 1865: Prizes awarded to the most diligent

children; seems to have the effect of spurring on the backward ones and creates emulation in the classes.

12 June 1867: Fr. Molloy gave children sweets for having attended school this week instead of playing.

14 August 1867: Tickets distributed to the children who have attended school pretty regularly during the year for a treat which is to be given tomorrow.

The gains were short lived, however. Bribes favoured those who were already regular attenders without noticeably improving the situation among problem families; and some pupils were impervious to punishment.

St Mary's and St Patrick's Boys' School

27 January 1869: Fr. M^{c}Gahven visits the school and punishes a boy for playing truant.

28 January 1869: Fr. M^{c}Gahven visits the school again this morning. The boy that he punished yesterday is playing truant again this afternoon.

Failure on this scale - and it was a failure reflected in every school in Hanley - left the teachers with few options. Some, in despair, tried to put pressure on the absentees by visiting their parents and by extracting from them a promise of attendance in the future.

Bethesda Girls and Infants' School

29 January 1864: Made ten visits to the parents of some children who have been lately absent.

But, once again, the benefits were often transient and the effort time consuming.

Bethesda Girls' and Infants' School

20 June 1864: Annie Hall (pupil teacher) spent every day this week visiting the parents of absent children.

Furthermore, teachers and pupil teachers alike resented

this degrading chore and undertook such visits as rarely as possible and then always unwillingly. These efforts always reached a crescendo in the weeks leading up to the annual examination when panic stirred in every teacher's breast and when any additional attendance, no matter how hard won, could be justified in terms of more pupils qualifying for the examinations and some of them gaining unexpected success.

Northwood Infants' School

16 April 1868: I sent E. Chadwick (pupil teacher) after several children this morning that I wish to be at school next week in order to make up the recognised number of attendances - one woman refused to let her children come owing to my having sent them home one morning for their pence.

Here once again the close relationship between absenteeism and fee paying is made abundantly clear. Add to this that fact that the collection of fees was usually a protracted affair, capable of disrupting the smooth running of the school for several days each week, [1] and it

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1. The extent of this disruption is graphically described by the master of Silverdale Board School, Boys' Department.
   30 January 1882: The enforcement of fees is regarded as a regular pantomime by the boys and their parents. There is a certain number who put everybody to as much trouble as they possibly can. If they trouble to come at all they bring no money and when sent home for it they run about the streets the whole of Monday, and, in many cases, Tuesday morning. The

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is hardly surprising that many teachers despaired of finding a solution to the problem and were reduced to tinkering with the daily routine of the school and to a philosophical apportionment of blame.

Northwood Infants' School

17 January 1868: Much better attendance but several children are still very irregular. I think this is the fault of the parents and it is useless punishing the children for it.

Northwood Boys' School

14 February 1865: Judging from the appearence of some of the half timers who are in arrears with their school pence I think that it is not, as they allege, scarcity of work but the improvidence and vice of their parents which causes them to be slovenly and in debt.

(Footnote continued from page 322)

presence of the Board visitor may send the majority of them in during Tuesday or Wednesday but the same performance is being gone through week by week.

14 July 1884: The difficulty of collecting pence grows worse week by week. All day Monday, and, in many cases part of Tuesday and Wednesday, the school does no work worth the name. From 15% - 20% habitually come without their fees. These have to be sent home. Some come bakc two or three times. Thus what work is taken in class is only partial and has to be gone over again. This afternoon, for example, there were 79 children away. How any school can make as much progress as is required under the circumstances I am at a loss to find out.

No one could argue with such an assessment for in mid-Victorian England the parents were undisputedly responsible for the behaviour of their offspring - even when they obviously had little or no control over them.

St Mary's and St Patrick's Boys' School

3 May 1866: The mother of one of the children came to enquire if he had been at school as he had not been home since Thursday morning (the previous week!) I made enquiries among the boys.

And even when irresistible temptations were placed in their path, in the form of an increasing number of schools competing for their custom.

Bethesda Boys' School

31 December 1862: Heard today of a scholar having left through being allowed to go to one of the other public schools without paying school fees.

For competition could have serious consequences, particularly for the less prosperous schools.

Bethesda Boys' School

22 January 1863: Heard today that the Wesleyans intend opening a day school. It will affect our numbers for we have from twenty to thirty children of Wesleyan parents.

And when competition led to variations in the scale of fees then the likely effects could be anticipated only with foreboding.

Facing problems of such awesome complexity it is hardly surprising, therefore, that many teachers sought escape in endless modifications to the one thing which was firmly under their control and which was, in their eyes at least , both understandable and manageable. This was, of course, the school itself and its day to day organisation.

As a result, registers were marked at 10.00 a.m. so as to accommodate late comers who would otherwise not be counted; registers were marked at 9.00 a.m. so as to encourage punctuality among the pupils; late comers were marked in red in the register so as to make them more memorable; late comers were not admitted after 9.30 a.m. and 2.00 p.m.; playtimes were extended and afternoon school was curtailed as a reward for good attendance; and even the times of opening were changed to cater for special local needs, either real or imagined. The list is almost endless, as was the ingenuity displayed by individual teachers and school management committees. But something more than ingenuity was required and irregularity of attendance remained the most intractable problem inherited by the Hanley School Board and was to remain so for the first twenty years of its existence. This was hardly surprising since, apart from appointing first a School Board Officer and later a full time attendance officer, [1] the Board did little more than follow the well trodden paths of punishment and incentive. [2] But the bye-laws were weak,

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1. Mr Chaffings was appointed School Board Officer on 22 November, 1871, less than one year after the establishment of the Board. A second officer, with particular responsibility for visiting absentees was appointed on 18 December 1872.
   Both appointments are recorded in the Minutes of the Hanley School Board.
2. Hanley School Board Minutes:
   17 January 1875 - prize cards to be awarded for children who attended schools under the Board 420 times and upwards.

prosecutions rare and punishments light; and yet, in the face of overwhelming evidence on this score, the Board had little to offer beyond endless debates and petty decisions about new methods of recording absentees and informing parents about arrears of fees. [1] It is this inertia in the face of apparently overwhelming problems which is perhaps the least explicable of the responses of successive school boards. How could a group of men - men who, in the main, had achieved considerable success in business, at a local level at least - do so little to resolve a set of problems which they had clearly identified before the establishment of the first school board and which remained at the forefront of their minds for many years after 1871? Why did they not use the bye-laws to introduce direct compulsion? Were the denominational and factional constraints still too strong to be challenged? Were the problems thought to be beyond the capacity of mere bye-laws to resolve? Or did the problems seem less pressing once they had safely taken office?

The subjective accounts contained in log books, minute books and the columns of local newspapers can give guidance on most of these points but the true nature and extent of the attendance problem can only be approached through the surviving statisical evidence. And such evidence is extremely rare, consisting as it does of the highly generalised and heavily processed statistics published by

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1. Hanley School Board Minutes. 15 April, 1875.

the government and, at the other extreme, of the fragmentary evidence provided by the odd surviving school list or register. In Hanley one such list has survived - in the log book of Northwood Boys School - and, by a happy coincidence it is for the year 1870. [1]

ATTENDANCE AT NORTHWOOD BOYS' SCHOOL

Returns for individual schools should always be treated with caution and too much should not be read into any analysis. The return for Northwood Boys' School merits extra care since it is unique, forming as it does part of the statistical exercise which preceded the first School Board election. As a result, it runs from Easter (i.e. 20 April 1870) to 31 December, 1871 - a period which coincides with neither the calender year nor the academic year - and it can, therefore, be compared with returns for none of the other authorities in England or Wales. Futhermore, it is the only return to have survived in the Borough of Hanley - a tribute to the conscientiousness of the master, William Shawcross who copied this and many

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1. Examination Schedules have survived with greater frequency and in Hanley for the year 1870 such documents exist for Northwood National Boys' School, Bethesda Boys' School and Bethesda Girls' School. These schedules contain a list of pupils entered for the examination, their age and standard and the number of attendances put in during the year. (There was an attendance qualification for the examination so that poor attenders were excluded for the schedule).

other returns into his school log.[1]

Without any basis for comparison, therefore, it is important to remember that the pupils of Northwood Boys' School cannot be taken to be representative of Hanley, let alone of other towns and city. An initial problem is that the social and economic make up of the area is unlikely to mirror that of the town as a whole. The extent of this problem can be seen from the statistical picture given in the following table. This suggests that, although Northwood was, like most parts of Hanley, a working class district, it was representative of the more stable working class elements of the town. And, while the semi-skilled and unskilled labouring classes (social groups 6 and 7) were over-represented in the area, there were fewer broken families than might be expected, multiple occupancy is on a comparatively small scale and the number of families lodging outside the family group is also small. Add to this the fact that there were remarkably few immigrant families living in Northwood and the picture is one of a working class community which was considerably more stable than many other communities in the town. This is reflected in the type of housing which was moderately rated but was remarkably homogeneous both in type and age - as might be expected given that most of the houses outside the original village core and away from Keelings Lane which linked Northwood to the main road between Hanley and Chell,

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1. 31 December, 1870 also marked the end of William Shawcross's twelve years as master at Northwood School and his recording of statistics increased considerably during the autumn term 1870.

NORTHWOOD AND HANLEY: SOCIAL MAKE-UP

	PROPORTION OF FAMILIES WHICH ARE:	NORTHWOOD	HANLEY
OCCUPATION OF FATHER	Potters	40.5	26.9
	Colliers	14.4	12.8
	Ironworkers	2.3	6.1
BIRTHPLACE OF FATHER	Born outside North Staffordshire	37.5	58.6
NATURE OF HOUSEHOLDING	Tenants	86.2	79.7
	Lodging outside the family	2.6	6.3
NATURE OF OCCUPANCY	Multiple Occupants	36.2	43.8
STRUCTURE OF THE FAMILY	Non-Normal	19.9	24.4
SOCIAL CLASS	In Social Classes 1-4	4	10.2
	In Social Classes 5-8	57	89.8
RATES	Average Rate Paid	5s 8p	6s 1p
SCHOOL ENROLMENT	Rate	70.3	66.9

had been built within the last thirty years. This is not to say that the houses were of particularly good quality. Indeed if the Medical Officer for the Borough is to be believed, the very reverse was true.

"I visited a house in Vine Street Northwood and found the roof in a very bad condition, having sunk all on one side and in some parts in the centre, at least twelve inches. There is no drain to the houses and I believe they have

not been built more than two years". [1] Add to this frequent reports of 'nuisances' in the form of ash tips and cess pits near to the houses, a stream which was virtually an open sewer and a water supply which, in places, verged on the totally inadequate and the impression given is of incipient slums rather than sound working class houses. But incipient slums are preferable to actual slums and many of the older areas of Hanley already fell into this category so that the terraced streets of Northwood were likely to attract the more stable working classes and the poor, who undoubtedly existed in large numbers, were more likely to be representative of the deserving poor. It is hardly surprising, therefore, that school enrolment was significantly above the average for the town as a whole or that the schools at Northwood were among the most seriously overcrowded in Hanley.

This, in turn, imposes yet another serious constraint on the interpretation of returns for a single school, for those returns will reflect the development of schooling in one area and this is hardly likely to be representative of the town as a whole. Fortunately, thanks once again to the zeal of the master, William Shawcross, the trend in the Northwood district can be clearly traced in a document which was designed to summarise his success in the past during the preceding twelve years. [2]

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1. Staffordshire Sentinel 29 October, 1870.
2. Log Book: Northwood Boys National School. 25th December, 1870.

Statistics of the Northwood Boys' National School from its opening in January, 1859 to December 25th, 1870.

Compiled by William Shawcross, master.

Year	Average Attendance	School Pence	Comment by Her Majesty's Inspector on Master's Parchment Certificate
1859	58.5	£29.17s.5½d.	Mr Shawcross has made a good start in a difficult place. All will depend on his success in securing a regular attendance.
1860	62.0	£49.9s.11d.	A great deal yet to do particularly with regard to lower classes.
1861	58.2	£43.12s.7½d.	I am pleased with the result of Mr Shawcross's work.
1862	70.5	£51.2s.11½d.	The school is in good order.
1863	60.3	£43.17s.10½d.	Mr Shawcross is skilful in imparting instruction and has fair control over the children.
1864	77.3	£52.6s.0½d.	Discipline much improved.
1865	84.8	£58.9s.9d.	Discipline good and elementary subjects fairly satisfactory.
1866	82.0	£56.10s.3½d.	The children are in good order.
1867	87.0	£63.10s.8½d.	The school has passed a fair exam.
1868	125.0	£83.13s.7½d.	Results of the examination are fairly satisfactory.
1869	129.6	£87.2s.9d.	Mr Shawcross should have more assistance.
1870	150.8	£103.10s.10d.	Very fair progress. Mr Shawcross exercises a good moral influence over the boys.

Damned by faint praise from Her Majesty's Inspectors maybe, but William Shawcross could undoubtedly look back on a decade of considerable achievement including achievement in the particularly fraught area of school attendance. Here he saw initial paucity transformed into positive affluence and the schools enlarged on two separate occasions to cater for the influx. [1] Not that progress was uninterrupted. The early years of the decade saw several false dawns before, in 1868, a radical and sustained improvement in attendance took place at the boys' school. In that one year average attendance rose by more than forty percent to 125 and by the end of the decade this figure had reached 150. Such a rate of growth, greatly in excess of the growth of population in the district, suggests that the progress was indeed real and that the master of the schools could claim considerable credit for it. How clearly it relates to the trend in schooling for Hanley as a whole is open to conjecture. All that can be said for certain is that both areas saw a massive increase in both population and in schooling during the decade prior to the Elementary Education Act.

The basis for comparison may be limited, the dangers of extrapolation may be obvious but the returns for Northwood Boys' School merit attention for the light which

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1. The log books indicate that two major extensions were carried out to the schools at Northwood:
    1. On the 4 June, 1866 a new Infant School Room was opened.
    2. On the 26 January, 1869 the new Girls' School was opened.

they can shed on the attendance problem in one locality, at one moment in time.

The return consists of a list of 423 names - the total number of boys who enrolled at the school from 20 April 1870 to 31 December 1870. For each pupil the total number of attendances made during that period is given, together with his age in years and the standard attained either on the day of the return (25 December) or at the time of leaving. In addition, half time and evening scholars are clearly distinguished from full time pupils, although no attempt is made to separate the two groups. Fortunately this problem, potentially so serious in its implications, emerges as being comparatively unimportant. For, as the Education Return to the Committee of Council on Education [1] shows, of the 71 night school students on the role no fewer than 61 were aged 14 or over and were, therefore excluded from the detailed attendance return. It can probably be assumed then that the number would not be much greater for the year as a whole and that it is safe to designate as half timers all pupils who are distinguished by an asterisk in the list.

A more serious problem is posed by the lack of information concerning length of stay in the school. As a result, pupils who left school during the period or who enrolled towards the end of it would record low attendances - even though they may have attended regularly during their period of enrolment. This is indeed a serious problem

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1. Log Book: Northwood Boys' National School. 10 November, 1870.

for all contemporary evidence suggests [1] both that stays in school were often very short and that enrolment and deregistration could take place at any time during the year. And Northwood Boys' School seems to conform to this pattern, if the evidence of the attendance returns is to be believed. These suggest that in order to achieve a weekly average attendance of just over two hundred, two hundred and fifty pupils were enrolled.

	February 1870 [2]	10 November 1870 [3]
Number of full time pupils enrolled.	184	195
Number of half time pupils enrolled.	73	68
Total number of pupils enrdled	257	263
Average attendance of full time pupils.	128.7	124.9 [4]
Average attendance of half time pupils.	27.5	78.6 [4]
Average weekly attendance (for the week of the return).	207 (this is the average for three weeks prior to the return)	221

Summary Attendance Returns Transcribed into the Log Book of Northwood Boys' National School

1. See Page 261.
2. Log Book: Northwood Boys' National School. February 1870.
3. Ibid. 10 November, 1870.
4. Calculated from the detailed attendance return of 25 December, 1870.

The similarity of the two enrolment figures is striking, indicating that the school was filled to capacity and that there was no shortage of new pupils to take up the places vacated by boys who had achieved some kind of exemption, had left the district, or who, more typically, had simply ceased to attend school. What is certain, however, is that the 257 boys on the register in February would be very different from those who appeared nine months later in November. This pattern, hinted at in the low average attendances per pupil, is confirmed in the detailed return of December which indicated that during the summer and autumn terms alone no fewer than 423 boys were enrolled and that it was this number which was required to maintain an apparently stable register of about 260.

Such figures give a clear indication of the strength of these underlying trends in attendance patterns both locally and nationally. What is more surprising, however, is the comparative consistency of the weekly averages given the obvious irregularity of individual attendances. The figures of 207 and 221 contained in the February and November returns are typical, and for the year as a whole the average weekly attendance was 217 and the annual range was from 196 for the week ending 14 January to 256 during the week ending 14 October.[1] Similar increases in attendance took place during the year in most schools in North Staffordshire throughout the second half of the nineteenth century - a reflection in most cases of the

1. The complete weekly averages for Northwood Boys' National School are included in the log book. They are given in Appendix D.

differential impact of factors such as inclement weather and the incidence of epidemic diseases and in some cases of the gradual build up of numbers as the year progressed. In the majority of these schools however, the fluctations about the trend line were much more intense and the extremes of attendance were much greater than those seen at Northwood.[1] This indeed was a measure of success but whether it was success on the part of the master or whether it stemmed solely from growing pressures on the available accommodation in the district must still be open to doubt. But if doubts existed at the time it is unlikely that they extended to the supporters of the denominational cause in education. For here at the Northwood Schools there was ample evidence of success both in the field of enrolment and in the full utilisation of space - evidence which could be used to support the church case against the establishment of school boards. At the same time, of course, there was more than a suggestion that the major need in the future was for some form of direct compulsion and this was something which neither government nor church was prepared to contemplate.

It is obviously the behaviour of individual pupils which is the nub of this problem since it was apparently reflected on low average attendances and short stays in school. Some indication of the extent of the problem can be obtained from the summary statistics given overleaf but an understanding of the nature of the problem emerges far more clearly from a simple frequency distribution.- (See page 329).

	FULL-TIME	HALF-TIME	ALL
Number of Pupils	301	122	423
Mean of Attendance / Maximum possible attendances	124.9 / 293	78.6 / 146	114.8
Standard Deviation	87.8	56.7	85.76
Range	1-293	1-204	1-293

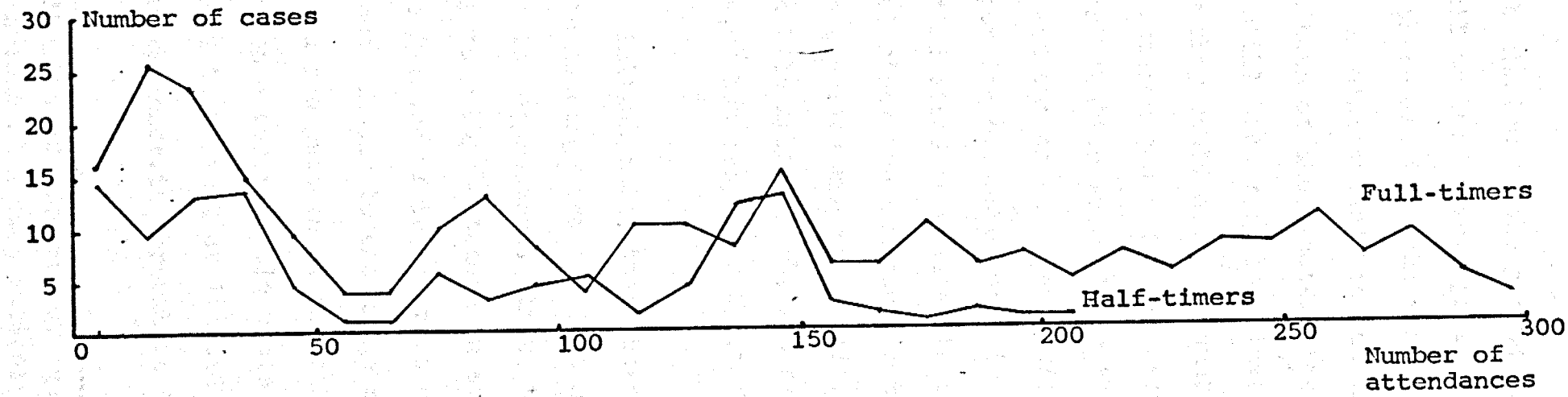
ATTENDANCE AT NORTHWOOD BOYS' SCHOOL: 1870 - SUMMARY STATISTICS

This shows that the very low mean attendance at the school (114.8 per pupil or 27.1% of the maximum possible attendance) is to a considerable extent attributable to the large number of very low attendances and it also indicates that the overall pattern of distribution is the product of the superimposition of two subsidiary patterns each of which is worthy of further study.

1. Full-Time Pupils

Seventy percent of the boys who enrolled at the school during 1870 did so as full-time pupils. Since the number on the register at any given time was unlikely to exceed two hundred and twenty this suggests a considerable turn over of pupils over a period of nine months. Among these scholars attendance is still remarkably low, averaging only 124.9 or 42.6% of the maximum possible number.

These two characteristics are reflected in the frequency distribution and in particular in the massive peak which occurs at the lower end of the scale - a peak which indicates that approaching thirty percent of full-time pupils attended school on fewer than fifty occasions. This group obviously includes a number of boys who left



ATTENDANCE AT NORTHWOOD BOYS SCHOOL: 1870

school at the beginning of the period to take up employment in either a full or half-time capacity. [1] And, at the other extreme there are the scholars - potentially more numerous - who enrolled toward the end of the year. Individuals in both of these categories could have attended regularly and still have very low final figures. Even so it is unlikely they could alone account for such a large number of low attendances and it is certain that the most significant contribution was made by the short stay pupils who passed in and out of the school with such carefree abandon. Supporting evidence for this viewpoint is not difficult to find since references to readmissions and multiple readmissions are numerous in the school log book. Few might have equalled the record of the incorrigible Bellis who, on 24th April, 1866, was readmitted for the twentieth time, [2] but many took their first steps along that path.

After the initial peak, attendances remain remarkably consistent with nothing more than the suggestion of a rise as the maximum is approached. This, together with the fact that only four boys attended on every occasion, is a measure of the failure of the 'carrot and stick' methods employed by most schools to encourage regularity of attendance. And the pattern of distribution suggests that it was failure on a considerable scale and that absenteeism was not confined to a small or limited section of the school population but was endemic throughout the district.

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1. The distribution of scholars by age (see page 339) suggests that this number will comparatively small since the number of full time pupils over the age of 11 is surprisingly

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2. Half-Time Scholars

No fewer than 121 boys are indicated on the list as being half-time or evening scholars. It is also clear from the Education Return of 10 November that the vast majority of these were in fact half timers. [1] Such a figure - even if allowances are made for evening scholars - is remarkably high and it suggests that the education clauses of the Factory Acts had been considerably more successful than is indicated in the census returns

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(Footnote continued from page 330)
small.

2. Log Book: Northwood Boys' National School.

1. The returns gives the ages of the pupils at the school as follows:

Age	Day Scholars (Half-time & full-time)	Evening Scholars
6 and 7	51	0
8 - 13	197	10
14 - 21	15	48

Since all the boys on the list are under 14 years of age few of them could have attended the evening school.

(see page 154). [1] At the same time, according to the occasional summary return transcribed into the log book, the number of half-time scholars on the register at any given time hovered around the seventy mark. This figure - 57.9% of the total number enrolled during the year, compared with 66% for full-time pupils - points to a turn over rate among half-time scholars which was significantly higher than for the school as a whole. [2] This in turn

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1. Not all school benefitted equally from the introduction of the half time system into Hanley and it is, therefore, dangerous to extrapolate from the returns for a single school. The figures for Northwood Boys' School do, however, indicate that the census figure of 67 is totally unrealistic and that even if all children under the age of thirteen and recorded as working are included, the new figure might be an underestimate. In fact an enrolment of 121 half time pupils in nine months adds considerable support to the estimate obtained from Mr Palmer's total for North Staffordshire as a whole (see page 155).
2. An interesting comparison can be made with the only other detailed return to have survived (Log Book: Northwood Boys' National School. 1 December, 1865) which gives the following statistics:

Total number of half timers admitted from 1 January to 30 November 1865	- 83
Total number of half timers who left from 1 January to 30 November 1865	- 28
Total number of half timers	55
Average stay in school of those who have left	6.7 weeks

implies that a considerable proportion of the half-timers must have attended for very short periods - a conclusion supported by the statistics provided for the Factory Inspector at the end of the first year of the application of factory legislation to the pottery industry which indicated that the average stay in school of all half timers who had left during the year was no more than 6.7 weeks (a potential attendance of little more than 30).

In the light of this evidence it is perhaps surprising to find, therefore, that the average attendance for all the half-time pupils on the list is 78.6 or 53.4% of the maximum possible number. Since this figure is significantly higher than the comparable figure for full time pupils (42.6) it suggests that half timers were more regular than full-time scholars and that the indirect compulsion of the Factory Acts was indeed having a beneficial effect on school attendance. [1] Once again, however, the frequency distribution hints at a more complex pattern of behaviour.

As for full-time pupils, the initial peak is the most striking feature of the distribution curve, indicating that almost 50% of the half-timers attended on fewer than fifty occasions. This situation, which is slightly worse than that for full-time pupils, [2] is to some extent predictable

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1. The figure is almost certainly too high since several boys changed from full-time to half-time schooling during the year and they could, and did, record attendances which were too high and which did on occasions exceed the maximum possible attendance for half time scholars (196).
2. Sixty of the one hundred and twenty one half-time scholars attended on fewer than 50 occasions. The comparable

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for not only did the pupils show the same tendency to enrol late in the year and to leave early but they were also under additional pressures imposed by the half-time system itself. The essence of this system was that schooling should be the inescapable adjunct of work for all children under the age of thirteen and that the employers, acting in conjunction with the schools should be responsible for enforcing it. The consequences were predictable and not always beneficial. Since education was so closely allied to work the loss of employment, either permanently or temporarily, was often followed by the termination of schooling. And, since employers were to a considerable degree responsible for the enforcement of the legislation, they sometimes used their powers to enforce attendance at the schools of their choice, so that any change of job could result in a change of school. Add to this the fact that the majority of half-time pupils were approaching the time when all legal requirements to attend school were about to cease and it is hardly surprising that the number of short stay scholars was large.

The other distinctive feature of the distribution pattern is the second peak around the maximum possible attendance for half-time pupils of 146. This peak, representing as it does some 25% of the half-timers on the register, is much better developed than the equivalent rise in the distribution curve for full-time scholars and it indicates

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(Footnote continued from page 333)
figure for full-time scholars was 131 out of 301 (i.e. those attending 100 times or less).

yet another limited success for the education clauses of the Factory Acts. It also provides important evidence in support of the case for the extension of factory legislation as opposed to the introduction of direct compulsion.

Factors Influencing Attendance at Northwood Boys' National School

Absenteeism appears to have been endemic in the Nathwood district in 1870. Under these circumstances it would perhaps be optimistic to expect to isolate the factors which influenced school attendance.

Before the attempt can be made, however, it is necessary to identify the pupils mentioned in the attendance return and to locate them in both the census manuscript and the rate book for the same year. Once this has been done analysis is possible using actual attendances as the dependent variable and examining the influence on it of a whole battery of socio-economic variables, including most of those used in the study of enrolment.

Of the four hundred and twenty three boys on the school list, three hundred and fifty two could be indentified with certainty - comprising eighty three percent of the total. The failure to indentify the remaining seventeen percent can be attributed to a small number of comparatively simple causes.

1. Boys with the same surname and initials present an immediate and obvious difficulty. Occasionally some aid to indentification is given - usually in the form of full names or addresses - but where this is not forthcoming both cases were automatically dismissed.

2. A small number of pupils lived outside the boundaries

of the Borough of Hanley and were not, therefore recorded in the area census. Any search for these individuals would be so time consuming as to be not worthwhile, particularly given the small number of pupils concerned.

3. Since mortality was high in the Victorian city it is possible that one or two pupils died during the year. By the time a child left the Infants' school, however, the greatest danger had passed and the number was likely to be extremely small.

4. Most important among the causes was the mobility of the population at that time. This was characteristic of the rapidly expanding industrial towns and Hanley was no exception. Fortunately most of this movement was over comparatively short distances and the children can be traced in the census returns for the borough.[1] But of the seventy one boys who could not be traced the vast majority had undoubtedly left Hanley - most of them to go to neighbouring towns and villages, a few to leave the district altogether.

	(a) Number on list	(b) Number Traced	(b) as a percentage of (a)
Full-Time Pupils	301	268	89.0
Half-Time Pupils	122	84	68.8
All Pupils	423	352	83.2

PROPORTION OF PUPILS IDENTIFIED

1. The extent of this movement can be seen by comparing the census returns with successive rate books.

Finally, it is important to note that a significantly higher proportion of full-time pupils was identified in comparison with half-timers. This in turn suggests that a significantly higher proportion of half timers moved out of the borough of Hanley in the course of the year. Why this should be so is difficult to understand suggesting, as it does, either that half-timers were drawn from families which displayed an above average degree of mobility or that at a remarkably tender age the pupils themselves assumed a considerable amount of economic independence which enabled them to move to new employment in other areas.

Having identified the individual pupils, analysis becomes possible, using the same independent variables as were used in the study of enrolment but introducing actual attendance as the dependent variable. This provides a much more precise basis for measurement and it might be expected that the pattern of influences might reflect this difference. At the same time, because the scale of measurement differs for half-time and full-time pupils [1] an examination of the returns for the entire school population is not attempted and analysis is concentrated on each of the two sub-groups.

1. FULL-TIME SCHOLARS

This group, comprising 72% of the school population and 77% of the identified scholars, supplies 268 individual cases for study. Among these pupils attendance is still

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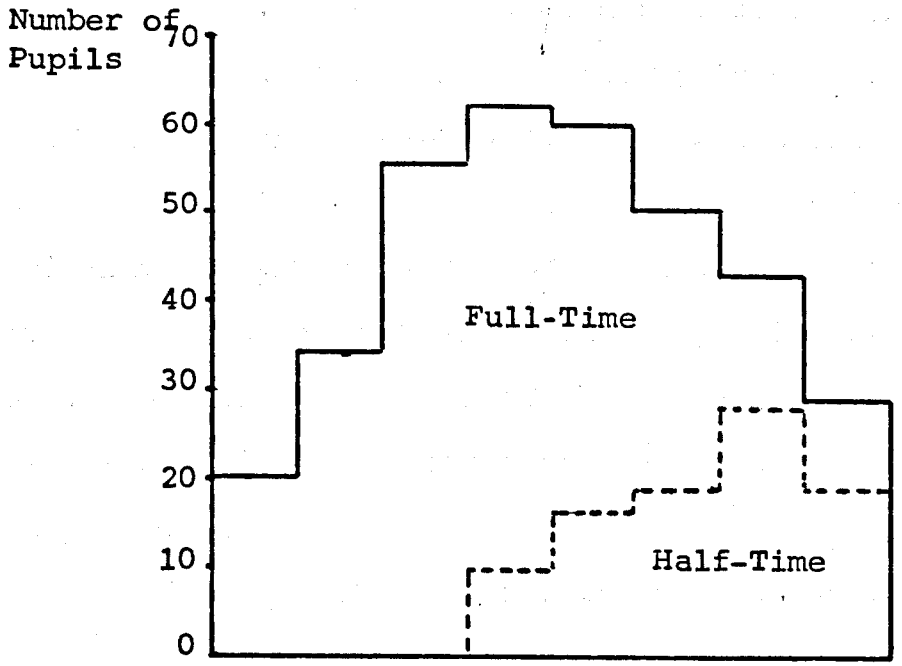
1. The maximum possible attendance for full time pupils was 293 while that for half-timers was 146.

remarkably low (124.5) suggesting that absenteeism was the rule rather than the exception in the Northwood area and that it affected almost every family. It is hardly surprising, therefore, that regression analysis fails to identify a pattern of influences which is as complex as that seen for enrolment, when behaviour was more varied. On the other hand, the influences which emerge do relate closely to those which were seen to effect school enrolment and, of these, three are of particular importance - the age of the pupil (significant at the 1% level), the position of the child in the family according to birth order (significant at the 5% level), and the nature of the occupancy of the family home (significant at the 5% level).

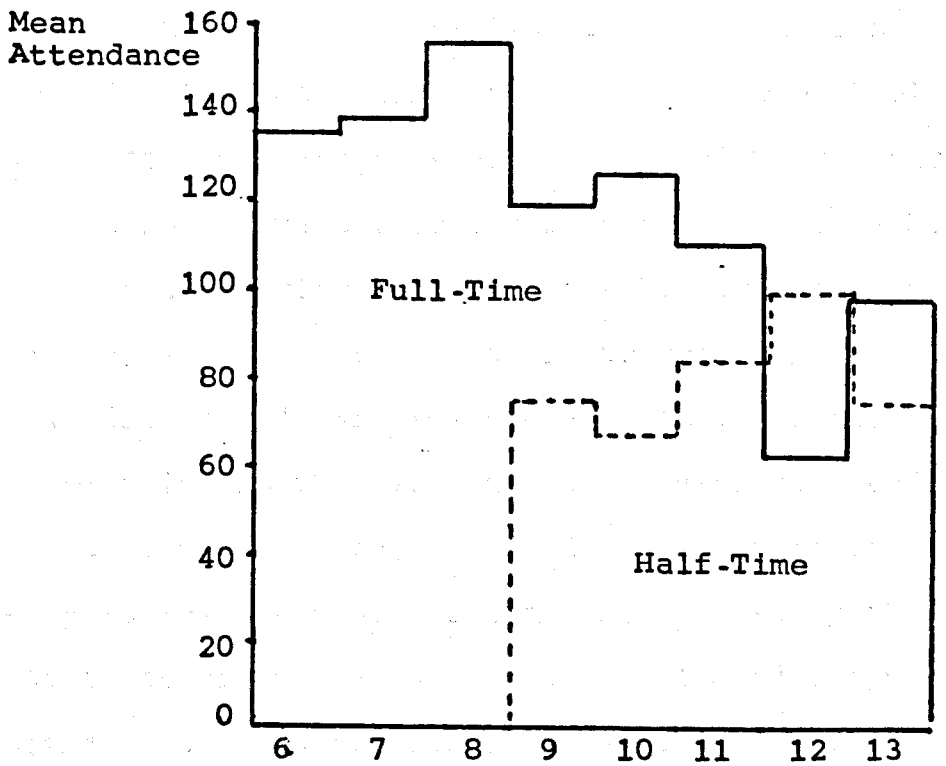
a) Age of Pupil

It is clear from the age structure of the school that, as with the overall pattern for enrolment, numbers gradually increase from the age of six to a peak at nine after which there is a decline, slow at first and then more rapid. The comparatively small number of pupils under the age of eight is to be expected since transfer from the Infant School to the Boys' or Girls' Departments was not entirely dependent upon age and many older pupils were held back because they had not reached the required standard. Similarly the decline in numbers after the age of nine is predictable since the opportunities for avoidance of school increased and may boys in areas such as Northwood undoubtedly took advantage of them.

The balance between full-time and half-time pupils is



Age Structure,



Attendance (by age)

NORTHWOOD BOYS' SCHOOL

also very important. Overall half timers made up 23% of the pupils traced but there was a build up in numbers from the age of nine to the age of twelve with a decline setting in at thirteen. This, taken together with the decline in overall numbers after the age of ten means that the half-timers made up an ever increasing proportion of each age group. So much so that 36% of eleven year old pupils were half-timers; 64% of twelve year olds; and 64% of thirteen year olds.

The age of the pupil is by far the most important single influence on school attendance with an overall negative trend, indicating that among full-time scholars attendances tended to decline as the age of the pupil increased. Within this overall trend, however, there are a number of significant variations. It is interesting, for example, that attendance peaked at the remarkably early age of eight and thereafter the decline was surprisingly rapid. To some extent this can be attributed to a higher rate of school leaving among older scholars but it must also indicate a greater degree of irregularity among such pupils. The second striking characteristic of the pattern of distribution is the reversal of the general trend after the age of twelve. Here, it would seem, the increased tendency to leave school was more than offset by the fact that this age group lay outside the recommended ages for schooling so that it is probable that the children of parents who valued education would predominate among those who remained as full-time scholars.

b) <u>The Family</u>

The nature and behaviour of the family group were

ATTENDANCE

Northwood Boys School: All pupils

DEPENDENT VARIABLE.. ATTEND

MEAN RESPONSE 114.48295 STD. DEV. 85.76437

MULTIPLE R	.48629	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.23648	REGRESSION	68.	618535.11852	10175.56518
ADJUSTED R SQUARE	.07905	RESIDUAL	291.	1971254.76721	6774.07143
STD DEVIATION	82.30475	COEFF OF VARIABILITY	71.9 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		3.96702	.047	.10586	.01121	.01121	.10586
2	FAMPOS		6.05738	.014	.16756	.02806	.01687	.11037
3	SIBPOS		4.69778	.031	.20254	.04102	.01295	.02611
4	F88		1.00274	.317	.20965	.04395	.00293	-.05639
	F86		.39955	.528	.21205	.04497	.00101	.02089
	F83		3.89719	.049	.23621	.05580	.01083	.10264
	F85		.37847	.539	.23852	.05689	.00109	.01296
	F87		.64903	.421	.24229	.05870	.00181	-.02109
	F82		.27408	.601	.24384	.05946	.00075	-.02149
	F89		.52630	.469	.24679	.06091	.00145	.01142
5	T2		3.94046	.048	.24733	.06117	.00026	-.00709
	T4		7.18933	.008	.27331	.07470	.01353	-.11478
	T3		1.50158	.221	.28822	.08307	.00837	.05370
	T1		4.41881	.036	.30812	.09494	.01187	-.01798
6	AGEC		15.69654	.000	.36787	.13533	.04039	-.22725
7	BC3		.00000	1.000	.36835	.14467	.00934	.00536
	SC8		3.28874	.071	.38054	.14481	.00014	-.02450
	BC6		1.12645	.289	.39016	.15222	.00741	.12713
	BC4		3.37815	.067	.39037	.15239	.00017	.02764
	BC6		3.55706	.060	.39037	.15239	.00000	.01790
	BC7		3.78614	.053	.40258	.16200	.00961	-.07945
8	NVD		1.58743	.209	.40747	.16603	.00402	-.06434
9	B6		.21297	.645	.40944	.16764	.00161	-.05294
	B5		.62865	.428	.42216	.17822	.01058	-.08343
	B3		.06274	.802	.42235	.17838	.00016	-.05493
	B2		.01939	.889	.42307	.17899	.00061	.05452
	B4		.03569	.850	.42308	.17899	.00000	.01843
	B8		.16521	.685	.42357	.17941	.00042	-.05427
	B1		.04249	.837	.42378	.17952	.00011	.02597
10	BV1		.19747	.657	.42429	.18003	.00050	-.04906
11	AGEF		1.49338	.223	.42876	.18383	.00381	.22686
12	F82		.01838	.892	.43337	.18781	.00397	.09122
	F86		1.59835	.207	.43448	.18870	.00089	-.09458
	F85		2.55815	.111	.43863	.19240	.00370	-.06146
	F84		.87525	.350	.43965	.19329	.00090	-.03698
	F83		1.75943	.186	.44404	.19771	.00441	-.01021
	F87		.03761	.846	.44475	.19788	.00018	-.02336
13	OF4		.59114	.443	.44602	.19893	.00113	.03623
	OF3		.00073	.979	.44610	.19901	.00007	.22693
	OF2		.01997	.888	.44655	.19941	.00040	-.11493
	OF1		.56537	.453	.44818	.20087	.00146	.07526
14	AGEM		.03211	.858	.44827	.20095	.00008	-.03293

ATTENDANCE OF ALL CHILDREN 14/12/77

FILE	SCHOOL (CREATION DATE = 14/12/77)		ATTEND IN MANLEY 1871				
15	MB7	.17993	.672	.44924	.20182	.00087	-.04412
	MB4	.00010	.992	.44976	.20228	.00046	.03517
	MB3	.02682	.870	.45923	.21089	.00862	.07745
	MB5	.05811	.810	.45945	.21110	.00020	-.06550
	MB2	.06461	.800	.45971	.21133	.00024	.02254
	MB8	.00000	1.000	.45978	.21140	.00006	-.01322
	MB6	.00837	.927	.46206	.21350	.00210	-.02304
	MB1	.05153	.821	.46221	.21364	.00013	-.07107
16	OM5	1.97823	.161	.47677	.22731	.01368	.12560
	OM4	.24845	.619	.47848	.22894	.00163	.06596
	OM2	.00914	.924	.47853	.22899	.00004	-.00869
	OM3	.07690	.782	.47981	.22945	.00046	.03118
	OM1	.00183	.966	.47981	.22945	.00000	-.00919
17	RATE8	1.93744	.165	.48423	.23448	.00503	.10878
18	R3	.02188	.882	.48426	.23451	.00003	-.01381
	R2	.23087	.631	.48495	.23518	.00067	-.05213
	R1	.39244	.532	.48601	.23620	.00103	.00367
19	DIST	.10393	.747	.48629	.23648	.00027	.00244

important influences on the pattern of school enrolment in Hanley. It is surprising, therefore, to find that this influence does not appear to extend to school attendance in the Northwood area. The extent of the divorce between these two aspects of schooling is typified by the fact that there is not even a significant relationship between attendance and the willingness of parents to introduce their children to school, as measured by the ratio of scholars to the number of school age children in the family.[1] In other words the willingness of parents to enrol their children as scholars was not reflected in better attendance once they had been enrolled. Not only this the patterns of influences at work on attendance often show if anything reversals of the trends seen in the study of enrolment with, for example, children from broken homes attending more frequently than those from non-broken homes and working mothers sending their children to school more regularly than non-working mothers - support perhaps for the argument that schools were used as child minding centres.

Of greatest importance, however, are the two factors which are highly significant, namely the social class of the family and the position of the individual pupil in the family as indicated by birth order. The latter was an important influence on school enrolment which tended to be higher among children who were born later into the family group. A similar trend is apparent in school

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1. Pupil ratio (PRATIO in the computer printout) =

$$\frac{\text{Number of scholars in the family}}{\text{Number of school age children in the family}} \times 100$$

attendance at Northwood Boys' school, and it is probable that the underlying causes are the same. In particular, the weakening of economic constraints as older children started work meant that the provision of school pence (three pence per week for the lower standards of the school and four pence for the higher standards) became less of a problem and that absenteeism resulting from the lack of money declined among later children. Add to this the fact that single children, who were inevitably the first born, were notoriously unreliable attenders [1] and it is hardly surprising that the trend towards improved attendance among later children was so strong.

Finally, there is some evidence that social class significantly influenced the pattern of school attendance, with a trend towards lower attendances among the lower social groupings. This emerges most clearly if analysis is carried out with the variable, social class, restructured as a simple dichotomy. Then the attendance of children of the unskilled and labouring classes is markedly lower than that of the other children.

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1. All the evidence suggests that there was a strong tendency to protect an only child or a first born child from the infectious diseases which could devastate the elementary schools of Victorian England. Such tendencies were strongest when the children were young but there is some evidence to suggest that the protective instincts of the mother persisted much longer (see page 277).

ATTENDANCE

Northwood Boys: Full-time scholars

DEPENDENT VARIABLE.. ATTEND

MEAN RESPONSE 124,46134 STD. DEV. 93,64618

MULTIPLE R	,52171	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUAR
R SQUARE	,27219	REGRESSION	60,	597139,46565	9952,3244
ADJUSTED R SQUARE	,06123	RESIDUAL	207,	1596727,44086	7713,6591
STD DEVIATION	87,82744	COEFF OF VARIABILITY	70,6 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		1,42965	,233	,07312	,00535	,00535	,07312
2	FAMPOS		3,72168	,055	,13828	,01912	,01378	,10695
3	SIBPOS		3,79435	,052	,18171	,03302	,01390	,01435
4	FS8		1,01533	,315	,19237	,03701	,00399	-,06797
	FS6		,24754	,619	,19436	,03777	,00077	,01591
	FS3		6,44459	,012	,24712	,06107	,02329	,15084
	FS7		,78259	,377	,25315	,06408	,00302	-,03467
	FS5		,02689	,870	,25329	,06416	,00007	-,01470
	FS2		,13959	,709	,25426	,06466	,00050	,04372
	FS9		,00926	,923	,25435	,06469	,00003	-,00562
5	T2		2,89898	,090	,25474	,06489	,00020	-,00777
	T4		3,90516	,049	,26418	,06979	,00490	-,09190
	T3		1,45828	,230	,27320	,07464	,00485	,02665
	T1		3,55329	,061	,29573	,08746	,01282	-,01512
6	AGEC		9,15119	,003	,34559	,11943	,03198	-,17618
7	SC3		,00013	,991	,35993	,12955	,01012	,09897
	SC8		1,12060	,291	,36339	,13205	,00250	,03683
	SC5		,92437	,337	,37474	,14043	,00838	,11114
	SC4		3,57074	,060	,37707	,14218	,00175	-,00639
	SC6		2,38899	,123	,37894	,14360	,00142	,04685
	SC7		3,31294	,070	,39367	,15498	,01138	-,13546
8	NVO		1,99835	,159	,40226	,16182	,00684	-,09147
9	B6		,20578	,651	,40431	,16347	,00165	-,07743
	B3		,17407	,677	,40677	,16546	,00200	-,03944
	B5		,86635	,353	,42987	,18479	,01932	-,12782
	B2		,00385	,951	,43439	,18869	,00391	,07937
	B4		,05125	,821	,43439	,18870	,00001	,00839
	B8		,21399	,644	,43522	,18942	,00072	-,06851
	B1		,05176	,820	,43543	,18960	,00018	,03546
10	SV1		,88049	,349	,43886	,19260	,00300	-,07123
11	AGEF		,69385	,406	,44155	,19496	,00237	-,00773
12	FB2		,48437	,525	,45258	,20483	,00986	,14415
	FB6		1,66159	,199	,45451	,20658	,00175	-,13174
	FB4		2,90795	,089	,46199	,21343	,00685	-,07986
	FB5		1,04168	,309	,46426	,21553	,00210	-,07626
	FB3		,98197	,323	,46775	,21879	,00326	,01522
	FB7		,02479	,875	,46784	,21887	,00008	-,03212
13	OF3		,22294	,637	,46883	,21986	,00018	,03543
	OF4		,19629	,658	,46826	,21927	,00022	,02973
	OF1		1,50954	,220	,47445	,22511	,00583	,11194
	OF2		,10667	,744	,47484	,22547	,00037	-,16829
14	AGEM		,06980	,793	,47509	,22571	,00024	-,02295

ATTENDANCE OF ALL CHILDREN 12/01/78

FILE	SCHOOL (CREATION DATE = 18/01/78) ATTEND IN HANLEY 1871					
15	MB7	,14177	,707	,47608	,22665	,00095	-,05748
	MB4	,66890	,414	,47758	,22800	,00135	,01673
	MB2	,35426	,552	,47825	,22873	,00072	,07917
	MB5	,52265	,470	,47825	,22873	,00000	-,09394
	MB3	,92682	,337	,49413	,24416	,01544	,08081
	MB8	,24318	,622	,49416	,24420	,00004	-,02394
	MB6	,02193	,366	,50161	,25162	,00742	-,05371
	MB1	,26251	,609	,50251	,25252	,00090	-,08436
16	DM5	,50335	,479	,51212	,26227	,00975	,12149
	DM4	,00682	,969	,51226	,26241	,00014	,04447
	DM2	,07189	,790	,51248	,26263	,00022	-,05110
	DM3	,00880	,925	,51257	,26273	,00009	,01223
	DM1	,04196	,838	,51271	,26287	,00015	-,05186
17	RATES	1,15933	,283	,51662	,26690	,00403	,09828
18	R3	,00196	,775	,51678	,26706	,00016	-,02936
	R2	,16301	,687	,51749	,26780	,00073	-,06838
	R1	1,21785	,271	,52159	,27200	,00420	,03753
19	DIST	,03714	,847	,52171	,27219	,00019	-,02660

ATTENDANCE AND SOCIAL CLASS

	SOCIAL CLASSES 3, 4, 5a and 5b	SOCIAL CLASSES 6 and 7
MEAN ATTENDANCE	141.1	114.7
STANDARD DEVIATION	93.4	80.3
NUMBER OF CASES	74	154

As we have already seen the lower social classes were over-represented in the Northwood area (in the boys school 67.5% of the pupils were the children of parents belonging to the unskilled or labouring classes i.e. social groups 6 and 7) and it is probable that this factor did contribute to a lowering of school attendance in the area.

c) The Nature of the Tenancy of the Family Home

The remaining influence was also foreshadowed in the study of enrolment and again it is those children who, whether on their own or together with the rest of the family, were forced to take up lodgings outside the kinship group who were most seriously affected. Among this group attendances were significantly lower than the average for the school population as a whole - a feature which does not apply to the children of families who remained within the kinship group. It is perhaps surprising, however, that this pattern of attendance does not appear to be associated to the same degree with the breakdown of the family group which does not here register as a significant influence.

2. HALF-TIME SCHOLARS

Half-time scholars made up 28% of the names on the list and 23% of those who were traced. Among this group

ATTENDANCE: NORTHWOOD BOYS' SCHOOL: HALF-TIME PUPILS

* MULTIPLE REGRESSION * * * * * * * *

DEPENDENT VARIABLE.. ATTEND

MEAN RESPONSE 82.58333 STD. DEV. 57.62931

MULTIPLE R	.70600	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.49844	REGRESSION	43.	137396.09554	3195.25814
ADJUSTED R SQUARE	-.34475	RESIDUAL	48.	138258.31817	3455.45795
STD DEVIATION	58.79165	COEFF OF VARIABILITY	71.2 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		.98760	.323	.10939	.01190	.01190	.10939
2	FAMPOS		.00009	.992	.10939	.01190	.00000	-.34270
3	SIBPOS		.38771	.535	.12918	.01667	.00477	-.06613
4	FS3		.73596	.394	.17496	.02923	.01256	-.14342
	FS5		1.05444	.308	.22291	.04969	.02046	.13240
	FS2		2.53786	.115	.27157	.07375	.02406	-.24473
	FS9		2.38946	.126	.31935	.10198	.02823	.16761
5	T2		.00161	.968	.31936	.10199	.00001	-.00023
	T4		.27669	.600	.35069	.12299	.02100	-.16548
	T3		1.85138	.178	.38437	.14468	.02169	.21874
6	AGEC		.04362	.841	.38480	.14516	.00048	.07492
7	SC5		6.33179	.014	.45712	.20896	.06380	-.23763
	SC4		3.36502	.071	.49986	.24986	.04090	.19816
	SC6		1.89056	.174	.51949	.26987	.02001	-.14838
8	NVG		.39988	.529	.52358	.27414	.00427	.04194
9	B5		2.26614	.137	.54383	.29575	.02161	.15792
	B4		.23425	.630	.54511	.29714	.00139	.04612
	B1		.21914	.641	.54526	.29731	.00017	-.01658
	B3		.42873	.515	.54953	.30198	.00468	-.05871
10	SVI		.16148	.689	.55115	.30377	.00178	.09267
11	AGEF		.06736	.796	.55184	.30452	.00076	.07387
12	FB6		.41754	.521	.55184	.30453	.00001	-.00282
	FB5		1.32235	.255	.55864	.31208	.00755	-.02159
	FB4		3.90650	.053	.58984	.34791	.03583	.17964
	FB3		.30585	.939	.59663	.35596	.00805	-.09433
	FB1		1.62189	.208	.61138	.37378	.01782	.05679
13	OF3		2.73145	.104	.63981	.40833	.03455	-.12563
	OF2		.09604	.758	.63922	.40861	.00028	.07572
	OF1		.07974	.779	.63991	.40948	.00087	.07865
14	AGEM		.05793	.811	.64041	.41012	.00064	-.12350
15	MB5		.00067	.980	.64369	.41434	.00421	-.08718
	MB3		.22995	.634	.64731	.41901	.00467	-.01656
	MB4		.17125	.681	.65073	.42345	.00444	.02017
	MB6		.01400	.906	.65079	.42352	.00008	-.00734
	MB1		.19554	.660	.67386	.45408	.03056	-.05163
16	OM4		.00947	.923	.67394	.45419	.00011	.03614
	OM2		1.11082	.298	.69101	.47750	.02331	.24415
	OM5		.54515	.464	.69591	.48429	.00679	.11385
	OM1		.14351	.707	.69664	.48531	.00102	.14067
17	RATES		.06324	.803	.69719	.48607	.00076	-.19542
18	R1		.01086	.918	.69728	.48620	.00013	.00577
19	DIST		.01007	.921	.69737	.48633	.00013	-.11458
			.96564	.332	.70600	.49844	.01211	.02534

the mean attendance was 82.5 or 55.7% of the maximum possible attendance - a figure significantly higher than that for full-time scholars as a whole. Such a comparison is hardly fair, however, since the majority of half-timers were aged ten or over and at this age attendance among full-time pupils was declining rapidly. [1] If allowance is made for this it is clear that half-time legislation had achieved considerable success in enforcing regularity of attendance. The true extent of this success becomes more clearly apparent if the attendance of each age group is examined. Among nine and ten year old pupils the attendance of half-timers (when corrected to compare with the returns for full-time pupils) is very similar to that for full-time scholars. From the age of ten onwards, however, the behaviour of the two groups is very different, for, as attendance among full-timers begins to decline rapidly, among half-timers it begins to improve until by the age of twelve the comparative figures were 64.7 for the former and 200 for the latter. [2] And even the improved attendance among thirteen year old full-time pupils compares unfavourably with that among half-timers in the same age group.

At first sight regression analysis offers nothing but disappointment suggesting, as it does, that none of the

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1. Among full-time pupils age ten or over the mean attendance was as low as 108.2 or 36.9% of the maximum possible attendance.
2. The actual attendance of half-time scholars was 100 out of a possible 146 attendances. When this base is made comparable with that for full time scholars the attendance figure becomes 200.

independent variables makes a significant contribution towards explaining the variance in the attendance of half-time pupils. But such results can in fact be interpreted as providing supporting evidence for the success of the education clauses of the Factory Acts since the apparent uniformity of behaviour could be the product of a general acceptance of the legislation. There is, of course, little evidence to support this point of view in contemporary accounts which tended to dwell on the problems of enforcing the acts and in particular on the inadequacy of so many parents. Factory Inspector, Robert Baker summed up the position:

"In the Potteries, the offences for the most part have been by parents against the schooling clauses i.e. not sending their children to school, and they have been prosecuted as being in this respect more negligent than the employers". [1]

In the light of statements such as this, therefore, it is difficult to believe that the situation could be so different in the Northwood area of Hanley. And yet how else can the apparent suppression of hitherto major influences such as the age of the pupil, his position in the family and the structure of the family be explained?

Certainly the comparatively high attendances among older pupils allied to the maintenance of these levels throughout the age groups suggests that the indirect compulsion of the Factory Acts was effective enough to coerce the most reluctant scholars into some degree of regularity. And this regularity, widespread as it was

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1. Reports of the Inspectors of Factories. 30 April, 1870. 1870 [C215] xv. 363.

throughout the half time population suggests that the inextricable alliance of schooling with work and, through it, wages was beginning to break down the resistance to education of some of the parents in the area who had hitherto regarded school as an expensive luxury to be tried and all too easily abandoned. These successes were, of course, only relative, and they have to be balanced against the quality of education which could be gained in a half time capacity. But they had been achieved in a comparatively short time and from a very low base for, as we have seen, it was not until 1864 that the Factory Acts were extended to cover the pottery industry and other local industries such as iron making had escaped legislation until 1867. And, in the case of Northwood National Boys' School they were successes achieved in an area where success was needed.

CONCLUSION

The very fact that it was felt necessary to apply for permission to establish a school board in Hanley suggests that the voluntary agencies had failed in their attempts to meet the growing demand for schooling in the town. And the speed with which the decision was taken, allied with the first School Board's early preoccupation with the provision of new school places suggests that this failure must have been almost complete. It is against this background, therefore, that any analysis of contemporary statistics must be viewed, and, in this context, some of the findings which emerge from a study of the census returns for 1871 are surprising to say the least.

First, and perhaps most surprising, school enrolment appears to have been remarkably high. Among the children covered by the so called compulsory clauses of the bye-laws instituted by the first Hanley School Board, for example, the enrolment rate exceeded seventy five percent. This indicates that in Hanley at least - and Hanley, in common with most of the North Staffordshire Potteries, was not regarded as a centre of extreme educational virtue - the idea of schooling had gained a much wider acceptance than is suggested by most contemporary reports, and that a large proportion of the working class there was not completely antipathetic towards education. It must also call into question the basis of measurement used to obtain the abnormally low figures employed by so many of the proponents of educational reform. For, not even when the survey is restricted to the 'efficient' schools in the borough can it be claimed that half of the potential school population remained untouched by the existing system of

education. Indeed the overwhelming impression remains that the efforts of the voluntary agencies in providing school places had been far from ineffectual. Thanks largely to a supreme effort during the decade leading up to the drafting of the Elementary Education Act, no fewer than five thousand school places had been provided in Hanley and it is clear that in many parts of the town provision had greatly outstripped demand. At the same time there were undoubted problems. In some of the most recent residential districts - districts which by 1870 housed a large proportion of the working class population of the town - there was a serious underprovision of places; and in some schools the accommodation greatly exceeded the ability of the agency to provide either the teachers or equipment needed to make use of it. If allowance is made for such difficulties, however, it must be accepted that the new School Board was probably guilty of only a small degree of over-optimism when, at its first meeting, it predicted that no large scale building programme would be necessary even when the compulsory clauses drove into the schools a large number of new pupils.

Although an age range of five to thirteen was formalised in the bye-laws passed by the first School Board it was tacitly accepted that enrolment should be encouraged among younger children. In fact such acceptance would have been difficult to withhold since, as the census reveals, almost fifty percent of three and four year olds were already enrolled at school. Many of these children almost certainly attended dame schools or adventure schools but the inclusion of this age group into the reckoning did

increase any potential deficiency of places and encourage the view that the voluntary agencies had failed in their attempts to meet the demand for schooling in the town.

But what of the minority who were not enrolled at any school? Is it possible to identify the children who belonged to this group and were they, as is implied in so many of the contemporary reports, drawn from certain well defined groups in society? Enrolment figures drawn from the census returns do little to support such a conclusion. There is strong evidence that enrolment tended to decline with age, with the main decline setting in after the age of ten when the possibility of finding work greatly increased. The employment of children was certainly widespread in the North Staffordshire Potteries in 1870 although the spread of government legislation since 1864 had led to a reduction in the number of children involved. It had also ensured that many of those children attended school in a half time capacity and there was a widely held view that a high degree of compulsion could be achieved among older children simply by extending and enforcing the existing factory legislation. Unfortunately few of the census enumerators distinguished between full time and half time scholars and it is impossible to test this hypothesis although there is strong evidence to suggest that a law of diminishing returns had set in with regard to the extension of the half time system and that more drastic measures would have to be introduced to compel attendance among those children still outside the schools.

While analysis indicates that age was undoubtedly the dominant influence on the pattern of enrolment among

children in Hanley, the effect of other influences is less strong and less clear. There is some evidence to suggest that children from broken families, and in particular from those who had been forced to take up lodgings outside the kinship group, were over-represented in the group which was not enrolled at school. And among the broken families, it was the children who had been left by their parents who were most adversely affected. The death of one or both parents appears to have had a less dramatic effect, a tribute perhaps to the strength of the family in Victorian society and its ability to adapt to death. Such a finding can be taken as supporting the generally accepted point of view that non-attendance at school was particularly prevalent among the lowest strata of society, including the feckless and the very poor. It is surprising, therefore, that other related indices, such as social class and the rateable value of the family home do not emerge as significant.

There is some evidence, albeit of an indirect nature, that poverty had an important influence on school enrolment. One of the more surprising findings of the analysis is that schooling tended to increase among large families. To some extent this trend can be attributed to the very low levels of enrolment among single child families where the parents appear to have delayed the introduction of the child to school, possibly to protect him from the danger of infectious disease which was endemic in the schools of the day. At the same time enrolment among large families was undoubtedly much higher than might be expected and one possible explanation of this was the reduction of financial constraints which took place when older children found

employment. Support for such a conclusion can be drawn from the fact that very few families, regardless of size, contained more than three children of school age and this means that most large families would include several children who had already started to work. And, as further confirmation, it is significant that enrolment tended to improve among later born children, suggesting that the financial constraints, which undoubtedly existed when the children were young and when the mother was unable or unwilling to work, gradually eased as the older children found employment and that this benefitted the children lower down the birth order. Finally, it cannot be coincidental that the spatial distribution of enrolment in Hanley appears to show a strong relationship to the social standing of the districts of the town. Unfortunately the pattern is less clear when individual influences are considered but the contemporary view that schooling was lowest in the poorest working class districts and highest in the more affluent middle class districts does appear to have been correct.

What is perhaps equally surprising is the number of omissions in this list of influences. Where, for example, were the Irish, the colliers, the potters, even girls - all reputedly characterised by low levels of schooling, all heavily censured by the authorities of the day? Analysis of the census returns suggests that enrolment among these groups differed little from that of the population as a whole and there is no evidence that factors such as sex, birthplace or occupation made a significant contribution towards explaining the variation which occurred in the pattern of schooling. Similarly the geographical

distribution of schools in the town also appears to have had little effect on the enrolment rate . The first bye-laws passed by the Board contained a clause which excluded from attendance any child who lived beyond what was thought to be a reasonable distance from the nearest school. But the census returns suggest that distance had a negligible effect on enrolment and that, given the highly irregular distribution of schools in the borough, many parents must have been prepared to send children considerable distances to school.

It is quite clear, therefore, that the idea of schooling had gained a much greater degree of acceptance among working class families in Hanley than might at first be expected and that the vast majority of children would, between the ages of five and thirteen, enter the gates of one of the schools in the town. This in itself must represent a considerable achievement on the part of the voluntary agencies and the fact that the first School Board could, with some confidence, anticipate no need to build new schools, adds an extra dimension to this achievement. Why then the sense of crisis?

Enrolment is, of course, not synonymous with attendance and the success of the voluntary agencies in initiating schooling did not always extend beyond that to the maintainance of attendance once the pupils were in the schools. This was without doubt the major problem facing both the voluntary agencies and the new school board, and the evidence from the one school in Hanley for which records have survived confirms the scale of this problem. Average attendance per pupil was less than fifty percent of the total possible attendance; average weekly attendances rarely reached eighty

percent of number on the register; and to maintain an average register of about 250 more than 400 pupils entered the school within the space of nine months. This suggests great irregularity in the attendance of individual pupils - a suggestion which is confirmed by the distribution of attendance among the 423 boys who appear on the school list. Very few pupils even approached full attendance and the major peak occurred at the opposite end of the scale with more than a quarter of the boys attending on fewer than fifty occasions. To some extent these low figures can be explained in terms of pupils enrolling during the year and of older pupils leaving to find employment but to a considerable degree they must be a reflection of an attendance pattern which was very irregular.

This irregularity was obviously very widespread and it is hardly surprising that analysis suggests a comparatively short list of significant influences. At the same time these influences are very similar to those which affected the pattern of enrolment. Once again the dominant influence was the age of the child and actual attendance, like enrolment, declined among older children. This decline was most pronounced among full-time pupils - the attendance of half timers was much more stable, suggesting that the system had achieved a degree of success in this area at least. The other influences are less important but there is evidence that attendance was low among first born children and increased among those who were born later into the family and who benefitte from their older brothers and sisters starting work. And attendance was also likely to be low if the family was in lodgings and in particular if their lodgings were outside the kinship group.

But the overall impression is that school attendance was generally irregular in the Northwood district of Hanley. Indeed for many of the children living there school must have been no more than a passing irrelevance to be entered lightly and to be deserted at the slightest excuse. So widespread and deep seated was this irregularity that it was unlikely to be resolved by the voluntary agencies alone. The indirect compulsion of the Factory Acts may have driven into schools some children who would not otherwise be there, and the half-time system does appear to have imposed some degree of regularity in attendance. But there were obvious limits to the further extension of this type of compulsion, not least the fact that children under the age of ten lay outside the powers of the acts and irregularity of attendance appears to have been almost as prevalent among this age group. Add to this the obvious inadequacies of half-time schooling, particularly when it followed a morning spent in hard manual labour, and parental attitudes which often ensured that absence from work, for any reason, resulted in a similar absence from school; and the wisdom of extending the system might even be questioned.

The situation in Hanley in 1870, on the eve of the Elementary Education Act can be summed up as follows - the majority of children, regardless of class or creed, did at some time appear on the register of one, or more, of the schools in the town; but few of them remained there long enough to receive an effective education. This was the failure of the voluntary system and it was a failure which by its magnitude greatly diminished an undoubted and

hardwon success in the field of provision and enrolment. It was also a failure unlikely to be remedied by an act which encouraged the establishment of school boards and then, rendered them virtually impotent as agents of compulsory education by making the compulsory clauses both local and discretionary and by providing so many legal loopholes that enforcement was virtually impossible. What was needed was compulsion of the most direct and severe kind; in short, a form of compulsion which was felt to be incompatible with a denominational system of schooling and for which informed public opinion was not yet prepared. In fact the staunchest opposition to such compulsion came from the churches themselves and it was their success in this battle which was eventually to undermine the position of the churches as the main providers of schools in England and Wales. For most local authorities were aware of the shortcomings of the existing system and many, like the Borough Council of Hanley saw in the establishment of a school board a means of resolving these problems. And the first School Board took office with a clearly defined set of goals and a high expectation of achieving them. Central to its policy was the enforcement of attendance, and the realisation that this was impossible within the powers of the Elementary Education Act left the members of the Board in a state of executive limbo. Not unnaturally they responded by shifting attention to the aspects of schooling over which they could maintain control, namely the provision of new schools - the very area which they had so assiduously foresworn during the election campaign. As a result during the next decade rate funded schools proliferated and an

alternative system of secular education was established in the town, largely at the expense of the existing denominational schools. This, in turn, destroyed the denominational case against compulsion and paved the way for further legislation which would institute both direct compulsion and eventually free education. And the latter inevitably heralded the end of the churches as an independent agency of schooling since no church - not even the Church of England - had the resources to compete with the rate funded school board system once school fees were abolished.

In 1870, however, all of this lay in the future and the citizens of Hanley could anticipate an act which would, in the words of Her Majesty's Inspector, the Reverend Watkins, provide "scholars not schools". It was, in fact, an act which did not materialise.

BIBLIOGRAPHY

I LOCAL SOURCES

Hanley School Board : Minutes 1871-1903

: Committee Minutes 1871-1903

: Report of the Proceedings of the Board 1894-1897

Hanley Borough Council : Minutes of the General Purposes Committee

School Log Books :

Bethesda Boys' School

Bethesda Girls' School

Hanley National Boys' School

Hanley National Girls' School

Northwood Boys' School

Northwood Girls' School

Northwood Infants' School

St Mary's and St Patrick's Boys' School

St Mary's and St Patrick's Girls' School

Shelton National Boys' School

Shelton National Girls' School

Silverdale Board School: Boys' School

: Girls' School

: Infants' School

Silverdale National School

: Boys' School

: Girls' School

: Infants' School

Hanley National School : Management Committee Minutes

Keate's Directory of the Staffordshire Potteries and Newcastle : 1869 : 1870 : 1873

II GOVERNMENT PAPERS

Minutes and Reports of the Committee of the Privy Council on Education. 1858-1872.

Reports of the Inspectors of Factories to the Home Secretary 1861-1872.

Reports of the Inspectors of Mines. 1860-1872.

Reports of the Medical Officer of the Committee of Council on the State of Public Health. 1859-1872.

Census of England and Wales. 1801-1901.

Census of England and Wales 1851 : Special Report on Education. 1851 (441) XLII.491.

Reports of the Commissioners appointed to inquire into the State of Popular Education in England and Wales (the Newcastle Commission).

Vol. 1. Report of the Commissioners. 1861 [2794 - I] xx.1. Part I.

Reports of the Royal Commission on the Employment of Children.

First Report , 1863 [3170] xviii. 1.
Second Report, 1864 [3414] xxii. 1.
Third Report , 1864 [3414 - I] xxix. 319.
Fourth Report, 1865 [3548] xx. 103.
Fifth Report, 1866 [3678] xxiv. 1.
Sixth Report, 1867 [3796] xvi. 67.

Return of the average number of scholars attending inspected schools. 1867 [3832] LV. 45.

Return of the average number of scholars attending inspected schools (distinguishing the poor). 1867-68 (58) Liii. 161

Results of an inquiry by the National School Society into the state of education in Church of England Schools in 1866. 1868-69 (96). XLVII. 269.

Return of the number of Schools inspected: 1859-1866. 1867 [3832] LV. . 45.

Return of the Parishes of England and Wales showing school accommodation and attendance 1867-68. (114) Liii. 177.

Licensing Returns 1868 . 1868-69 (429) xxxiv. 307.

Report of the Select Committee appointed to inquire into the State of the Education in Manchester and Salford. 1852-53 (571) xxiv. 301.

III CONTEMPORARY NEWSPAPERS AND JOURNALS

The Times. 1870-71.

Staffordshire Sentinel. 1870-71.

Staffordshire Advertiser. 1870-71.

Staffordshire Weekly Times. 1870-71.

Hansard.

Transactions of the National Association for the Promotion of Social Science.

IV ARTICLES AND THESES

Ball, Nancy, 'Elementary School Attendance and Voluntary Effort before 1870', History of Education, Vol. 2 No. 1, June, 1973.

Clewes, S., The School Boards of Stoke-on-Trent 1871-1903, Thesis, Sheffield, 1962.

Denton, F. T., and George, P. J., 'Socio-Economic Influences on School Attendance', History of Education Quarterly, Summer, 1974.

Ellis, A. C. O., 'Influences on School Attendance in Victorian England', British Journal of Educational Studies, October, 1973.

Hall, J., and Jones, D. C., 'The Social Grading of Occupations', British Journal of Sociology, March, 1951.

Katz, M., 'Who went to school?' History of Education Quarterly Fall, 1973.

McCann, W. P., 'Elementary Education in England and Wales on the Eve of the 1870 Education Act', Journal of Educational Administration and History, June, 1971.

Nixon, W. B., Factors influencing absenteeism at two elementary schools in Silverdale during the period 1862-1900, Thesis Keele, 1975.

Sanderson, M., 'Education and the Factory in Industrial Lancashire', History Review, 2nd Series, xx, 1967.

Silver, H., 'Aspects of neglect: The strange case of Victorian popular education', Oxford Review of Education, Vol. 3 No. 1, 1977.

Thompson, D. M., 'The 1851 Religious Census: problems and possibilities', Victorian Studies, Vol. II, 1967.

V BOOKS

Cohen, J. C. and P., Applied Multiple Regression/ Correlation Analysis for the Behavioural Sciences, New York, 1975.

Cruickshank, M., Church and State in English Education, London, 1963.

Curtis, S. P., History of Education in Great Britain, London, (6th Edition), 1965.

Davies, A. M., The Barnsley School Board 1871-1903, 1965.

Dyos, H. J., and Wolff, M., The Victorian City, London, 1973.

Goldthorpe, J. H., and Hope, K., The Social Gradings of occupations, Clarendon, 1974.

Hammond, J. L. and B., The Town Labourer 1760-1832, 1917.

Holman, H., English National Education, London, 1898.

Hutchins, B. L., and Harrison, H., A History of Factory Legislation, 1926.

Johnson, M., Derbyshire Village Schools in the Nineteenth Century, David & Charles, 1970.

Lawson, J. and Silver, H., A Social History of Education in England, London, 1973.

McLure, J. S., Educational Documents, England and Wales 1861-1968, Methuen, 1965.

McCann, P., Popular Education and Socialisation in the Nineteenth Century, London, 1977.

Mitchell, B. R., and Deane, Phyllis, Abstract of British Historical Statistics, Cambridge, 1962.

Morley, C., Studies in Board Schools, 1897.

Murphy, James, Church, State and Schools in Britain. Routledge, 1971.

Neff, W. F., Victorian Working Women, London, 1929.

Nie, N. H., Bent, D. H., and Hull, C. H., - Statistical Package for the Social Sciences, McGraw Hill, 1972.

Porter, G. R., The Progress of the Nation, 1912.

Rowntree, B. S., Studies of Town Life, 1902.

Rubinstein, D., School Attendance in London 1870-1904, Hull, 1969.

Sadler, M., The Half Time Question, London, 1892.

Shaw, C., When I was a Child, London, 1903.

Shaw, S., History of the Staffordshire Potteries, Hanley, 1829.

Silver, Pamela, and H., The Education of the Poor: The History of a National School 1824-1974, London, 1974.

Simon, B., Studies in the History of Education, 1780-1870. London, 1960.

Simon, B., Education and the Labour Movement : 1870-1920, London, 1965.

Sturt, M., The Education of the People. A History of Primary Education in England and Wales in the Nineteenth Century, London, 1967.

Victoria History of the County of Stafford, Vols. II and VIII, London, 1963.

Ward, J., History of the Borough of Stoke-on-Trent, London, 1843.

Wardle, D., English Popular Education 1780-1970. Cambridge, 1970.

Wardle, D., Education and Society in Nineteenth Century Nottingham. Cambridge 1971.

West, E. G., Education and the State, 1970.

West, E. G., Education and the Industrial Revolution, London, 1975.

APPENDICES

APPENDIX A

Revised survey of school accommodation carried out by the Hanley School Board and presented at the meeting on 21 June 1871.

	Name	Description	Situation	Accommodation	Actual Attendance 16 May 1871
1.	Eastwood Vale (N)	Mixed	Joiners Square	131	186
2.	Wellington (N)	Mixed	Mulberry St	282	377
3.	Ashley St (R)	Mixed	Shelton	131	88
4.	Shelton (N)	Boys, Girls, Infants	Shelton	430	314
5.	St Johns (N)	"	Lichfield Street	623	516
6.	St Johns	Boys	Chapel Fields	108	65
7.	Northwood (N)	Boys, Girls, Infants	Keelings Lane	425	469
8.	Trinity (N)	Girls	Trinity St	135	118
9.	St Marys & St Peters (R.C.)	Boys, Girls	Foundry St	337	380
10.	Bethesda (N.C.)	Boys, Girls, Infants	Bethesda St	729	263
11.	Wesleyan (W)	Mixed, Infants	Charles St	556	402
12.	Etruria (B)	Boys	Etruria	227	193
13.	Etruria	Girls, Infants	Chapel St	279	180
				4391	3551

/Cont...

In course of Provision

(R.C)	Infant	Weaver St	120
(N)		East Vale	137
(N)		Wellington St	150
(N)		Shelton	247
			654

N - National School R.C - Roman Catholic W - Wesleyan

R - Ragged School N.C - New Connexion B - British School

14. Bryan St. Ragged School - not mentioned

15. Hanley British School - closed.

APPENDIX B

VARIABLES USED IN THE MULTIPLE REGRESSION ANALYSIS

(giving nature and source)

Variable	Abbreviation used in Print Out	Categories within Variable	Type of Scale	Source
Status of child	STATUSC	1. Scholar 2. At home 3. At work 4. Half time scholar 5. Not known	Nominal	Census
Sex of child	SEX	1. Boy 2. Girl	Nominal	Census
Age of child	AGEC	-	Rational	Census
Children in family	NOFCHIL	-	Rational	Census
Children of school age in family	SCLAGEC	-	Rational	Census
Children at School in family	PUPILS	-	Rational	Census
Number of brothers	BROTHS	-	Rational	Census
Number of sisters	SISTS	-	Rational	Census
Birth Order	FAMPOS	-	Ordinal	Census
Birth Order: by sex	SIBPOS	-	Ordinal	Census
Number in family	FAMSIZE	-	Rational	Census
Number in Household	HSEHOLD	-	Rational	Census
Birthplace of child	BPF	1. Hanley 2. North Staffs 3. Rest of Staffordshire 4. Counties contiguous	Nominal	Census

/Cont...

Variable	Abbreviation used in Print Out	Categories within Variable	Type of Scale	Source
		to Staffs 5. Rest of England 6. Wales 7. Ireland 8. Scotland 9. Other		
Occupation of Father	OCCF	1. Potter 2. Miner 3. Iron Worker 4. Brick worker 5. Other 6. Unemployed	Nominal	Census
Social Class of Family (based on Father's occupation)	SOCCLF	-	Nominal	Census/Hall-Jones Scale
Birth place of father	BPF	1-9 as for BPC	Nominal	Census
Age of father	AGEF	-	Rational	Census
Occupation of mother	OCCM	1. Not working 2. Potter 3. Dress maker/ milliner 4. Laundress 5. Servant 6. Other		
Birth place of mother	BPM	1-9 as for BPC	Nominal	Census
Age of mother	AGEM	-	Rational	Census
Family Structure	FAMSTRUC	1. Normal ie. father, mother & children 2. Father dead 3. Mother dead 4. Mother & father dead 5. Stepfather 6. Stepmother 7. Father not mentioned 8. Mother not mentioned	Nominal	Census

/Cont...

Variable	Abbreviation used in Print Out	Categories within Variable	Type of Scale	Source
		9. Neither father nor mother mentioned		
Nature of householding	TEN	1. Tenant 2. Owner occupier 3. Lodging within kinship group 4. Lodgins outside kinship group	Nominal	Rate Books for Hanley & Shelton 1870
Number of Servants	SERVS	1. None 2. One 3. More than one	Nominal	Census
Occupancy of house	MULTOCC	1. Multiple occupancy 2. Single occupancy	Nominal	Census/Rate Books
Rates paid	RATES	-	Rational	Rate Books
Relief from Rates	RELIEF	1. No relief 2. Full relief 3. Owing full rates 4. Owing part of rates	Nominal	Rate Books
Geographical location of each house (cartesian coordinates)	COORD X COORD Y	X coordinate Y coordinate		Census/50" ordnance survey 1865: Hanley and Shelton
Distance from nearest school	DIST	-	Rational	Ditto
School attended	SCHOOL	1. Not known 2. Northwood Boys 3. Bethesda Boys 4. Bethesda Girls	Nominal	School log books & examination returns
Standard attained	STAND	1-6	Ordinal	Ditto

/Cont...

Variable	Abbreviation used in Print Out	Categories within Variable	Type of Scale	Source
Households containing scholars over the age of 13	OLDSCOL	1. Yes 2. No	Nominal	Census
IN ADDITION THE FOLLOWING NEW VARIABLES WERE CREATED:				
Pupil ratio = $\frac{\text{pupils} \times 100}{\text{SCLAGEC}}$	PRATIO			
New variable pupil ratio = $\frac{\text{PRATIO}}{10}$	NVPRATIO			
Degree of multiple occupancy = HSEHOLD - FAMSIZE	NVO			
Age of mother = $\frac{\text{AGEM}}{10}$	NEWVARM			
Age of father = $\frac{\text{AGEF}}{10}$	NEWVARF			
Rates = $\frac{\text{RATES}}{25}$	NEWVARR			
Geographical location = COORD X 100 + COORD Y	NEWVARL			
Attendance = $\frac{\text{ATTEND}}{50}$	NEWVARA			

APPENDIX C

Methodology

1) To Sample or Not to Sample?

The records of the Hanley School Board indicated that some eight thousand children of school age were living in the borough at the time of the 1871 census, and the number of family groups involved seemed likely to exceed four thousand. This being the case, the need to sample the data contained in the census was obvious and one of the initial decisions inevitably concerned the size and nature of that sample. Unfortunately the emergence of a second line of study based on the actual attendance of pupils at the schools for which records had survived greatly complicated matters, creating as it did the need to identify and locate at least six hundred and possibly eight hundred pupils. And, since these pupils tended to be concentrated in certain limited areas of the town - areas which centred on the schools in question - it was difficult to incorporate them into any reliable system of sampling. The inevitable conclusion was that two separate 'samples' would have to be employed - one which could be made statistically reliable, the other which would be determined solely by the survival of records - and that together they would almost certainly include about fifty percent of the families with children of school age.

It was in the light of this complexity that a decision was taken not to sample the census data but to include the entire potential school population of Hanley in 1871. The

drawbacks of such a drastic solution were all too obvious. The amount of work involved would be considerably greater - although the compilation of the alternative double sample would have involved a detailed and time consuming search through the census - and there was unlikely to be a commensurate improvement in the reliability of the results. At the same time, however, there were important advantages. Not the least of these was simplicity. By including all families with school age children, the group with known attendance at a known school was automatically incorporated into the main study of patterns of enrolment in the town. Furthermore there was strong evidence in the literature that problems of schooling were particularly prevalent among certain minority groups such as the Irish, the recent immigrants and families in receipt of relief. Some of these groups would inevitably be small in a town like Hanley and for a meaningful analysis to be carried out, any sample would have to be large. Once again the use of the entire population removed this problem. And finally, of course, the initial tabulation, lengthy as it was, provided a computer data bank which could be used by other students interested in other aspects of life in a Victorian industrial town.

2) <u>The Problem of Social Class</u>

The initial survey of literature, including some contemporary sources, suggested that schooling varied significantly according to social class and it was obvious that this should in some way be reflected in the list of independent variables. Given the limited nature of surviving evidence, however, it was equally apparent that the problem

could be approached only by means of a classification of socio-economic groupings based on parental occupation. Many such groupings have been devised, ranging in complexity from the Registrar General's five-point scale, used by most government departments, to infinitely more detailed modern scales such as the one devised by Goldthorpe and Hope.[1] Once again it was the nature of the surviving data which was to determine the choice.

Employment in Hanley in 1871 was dominated by a single industry - the pottery industry. And no major industry in Britain at that time was more fragmented, more craft conscious or better designed to present problems to any system of classification which attempts to group people according to the general standing in the community of their occupations. For not only were there many different trades within the industry, there was also an enormous variation in prestige between companies. For example, while pottery firemen were generally better paid and enjoyed greater social esteem than ovenmen, was a paintress at the world famous Wedgwood works to be compared with a paintress in a small back street potbank? There is no way of knowing, particularly since the evidence upon which a classification must be based is that contained in the census returns - evidence which is hardly the most detailed or the most accurate. In these circumstances a complex modern scale appeared highly inappropriate - indeed to have adapted one for

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1. Goldthorpe J. H. and Hope K. , The Social Grading of Occupations. Clarendon Press. Oxford. 1974.

use with the census of 1871 would have involved a major study in its own right.

It was the problem of matching the classification to the pottery industry of 1871 which eventually tilted the decision in favour of the Hall-Jones scale.[1] This was a comparatively simple system containing seven major groups:

Class 1 Professional and High Administrative.

Class 2 Managerial and Executive.

Class 3 Inspectional, supervisory and other non-manual, higher grade.

Class 4 Inspectional, supervisory and other non-manual, lower grade.

Class 5 Skilled manual and routine grades of non-manual.

Class 6 Semi-skilled manual.

Class 7 Unskilled manual.

Such a classification has obvious deficiencies - it is, for example, very coarse, particularly among the lower groups which contain the bulk of the working population. But it does offer a greater degree of differentiation than the Registrar General's classification and it was devised at a time when the pottery industry still retained much of its traditional craft structure. As a result, the match between the census returns and the occupations listed in the classification was often good.

3) The Computer Program

The aim of the study is to examine the relationship between a dependent variable (enrolment and attendance)

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1. Hall, J. and Jones, D. C., The Social Grading of Occupations. British Journal of Sociology. 1, March, 1951. pp. 31-35.

and a set of independent variables. Several statistical techniques are available for this purpose but, as we have seen, largely because the variables are represented on a variety of scales, multiple regression appeared to be most appropriate.

The computer program chosen is part of the Statistical Package for the social sciences (S.P.S.S.) devised at Stanford University but available at most large university computer centres in Britain. Details of the program are given below in an excerpt from the user manual.

4.6 MULTIPLE REGRESSION

The SPSS program REGRESSION can be used for fixed multiple linear regression, for stepwise multiple linear regression or for a mixture of fixed and stepwise regression. In the first case the regression is between a dependent variable and a fixed number of independent variables. In the second case the number of independent variables in the regression is not fixed. Instead, the procedure chooses from a given set of independent variables a subset of variables which give a good prediction equation for the dependent variable. This is achieved by stepwise regression, where one variable at a time is added to the regression equation until a satisfactory prediction equation is formed. More complex regression analyses can be specified by mixing fixed and stepwise regression where, for example, certain variables can be forced into the equation, then other variables can be added in stepwise mode.

Although the SPSS program REGRESSION only handles linear regression, it is possible to make use of the variable transformations in SPSS (x^n, $\log_e x$, e^x, etc.) before the regression analysis. In this way, other regressions such as polynomial, exponential, logarithmic, and so on, can be performed.

Fixed multiple regression will be described first, followed by stepwise regression, and finally mixed regressions with fixed and stepwise modes will be discussed. Readers wishing to use stepwise or mixed mode regressions are advised to read the section on fixed regression, since much of the specification of the REGRESSION program card is the same.

4.6.1 Fixed Multiple Regression

This technique is used to construct a relationship between a dependent variable Y and a fixed number of independent variables $X_1 \ldots X_n$, thus:

$$Y = B_0 + B_1X_1 + B_2X_2 + \ldots + B_nX_n$$

where $B_1 \ldots B_n$ are the regression coefficients and B_0 is the constant term.

The program calculates the regression coefficients and constant term which give the best prediction equation for Y from the n independent variables.

The format of the SPSS procedure card required to call the regression program is:

```
1                16
REGRESSION       VARIABLES = <varlist>/REGRESSION = <depvar>
                 WITH <inclusion list> (2)
```

The user must supply three parts in the specification field:

(a) <variable list> is a list of all the variables to be used in the regression, including the dependent variable. The variables must have been defined previously on a VARIABLE LIST card, and the TO convention may be used to specify several adjacent variables from the VARIABLE LIST card. Thus if the variables had been defined by:

```
1                16
VARIABLE LIST    HEIGHT, AGE, WEIGHT, STATUS, SCORE
```

then the first part of the REGRESSION card could be one of the following:

```
VARIABLES = HEIGHT, AGE, SCORE
VARIABLES = HEIGHT TO SCORE
VARIABLES = HEIGHT, WEIGHT TO SCORE
```

(b) <depvar> is the variable name of the dependent variable.

(c) <inclusion list> is a list of the independent variables in the regression. Again the TO convention may be used in specifying this list, but it should be noted that in this case the reference is made to the previously defined variable list as in item (a). Note that following the inclusion list is the number 2 enclosed in parentheses. This is the inclusion level, and the value 2 requests fixed multiple regression.

Two examples of the use of the REGRESSION card are given below, assuming that the following variables have been previously defined on a VARIABLE LIST card: HEIGHT,AGE,WEIGHT,STATUS,SCORE.

```
1                16
REGRESSION       VARIABLES = HEIGHT,AGE,SCORE/REGRESSION = SCORE
                 WITH HEIGHT,AGE(2)
REGRESSION       VARIABLES = HEIGHT TO SCORE/REGRESSION = SCORE
                 WITH HEIGHT TO STATUS (2)
```

In the first example three variables are used, HEIGHT,AGE,SCORE. The dependent variable is SCORE and the independent variables are HEIGHT and AGE.

In the second example all the variables on the VARIABLE LIST are specified by using the TO convention. The dependent variable is defined as SCORE, the other four variables, HEIGHT,AGE,WEIGHT,STATUS being the independent variables (defined by HEIGHT TO STATUS).

The output from procedure REGRESSION is described below.
The procedure first prints out the dependent variable and a list of the independent variables in the equation. This is followed by the multiple correlation coefficient, R, R-square, and the standard error (defined as the standard deviation of the residual). The R-square value can be interpreted as the proportion of the variance in the dependent variable accounted for by the regression equation. A fuller description of the variability in the dependent variable is given in the Analyses of Variance table printed out next. Here the variance of the dependent variable is broken down into two components, the variance due to the regression and the variance about the regression (the residual). The ratio of these two variance components produces an 'F' value, which can be tested for significance using standard F tables.

The procedure then prints out a table showing the regression coefficients ($B_1 \ldots B_n$) and the constant term B_0. The standard error of each regression coefficient is also given, as well as the normalised regression coefficients Beta (used in path analysis).

The following STATISTICS are available with REGRESSION:

STATISTICS 1 requests a printout of the matrix of correlation coefficients for all variables in the regression.

STATISTICS 2 requests the mean, standard deviation, and number of cases to be printed out for each variable in the regression.

The more important OPTIONS available with REGRESSION are (other OPTIONS are described in the full SPSS manual):

OPTIONS 4 is used for input of a matrix of correlation coefficients instead of raw data. It should be noted that the READ INPUT DATA card should be replaced by a READ MATRIX card, and that the format of each row of the matrix must be nF10.7 ($n \leq 8$).

OPTIONS 6 is specifically for stepwise regression. It suppresses the normal step-by-step output from stepwise regression.

OPTIONS 7 suppresses the summary table normally printed at the end of each regression which gives an overall summary of the steps in the regression, and is usually only required for stepwise regression. OPTIONS 7 should therefore be specified for fixed multiple regression.

Example: The use of the REGRESSION procedure for fixed multiple regressio:

```
1                16
RUN NAME         EXAMPLE OF FIXED MULTIPLE REGRESSION
VARIABLE LIST    SPEED,DENSITY,DIAMETER,PRESSURE,TEMP
INPUT MEDIUM     CARD
INPUT FORMAT     FIXED(5F6.2)
NO. OF CASES     120
REGRESSION       VARIABLES=SPEED TO TEMP/REGRESSION=SPEED WITH
                 DENSITY TO TEMP(2)
STATISTICS       ALL
OPTIONS          7
READ INPUT DATA
 Data cards
FINISH
```

This example would produce a regression with SPEED as the dependent variable and DENSITY,DIAMETER,PRESSURE,TEMP as the independent variables. Note that OPTIONS 7 is used to suppress the summary table.

4.6.2 Stepwise Multiple Regression

The aim of stepwise regression can be summarised as follows:

Given a set of independent variables, which subset of these variables will give the best prediction equation for some dependent variable? For example, if there are 20 independent variables which is the best set of 5 variables to use in a prediction equation for the dependent variable? One way of choosing the best five-term equation is to construct all possible prediction equations using different combinations of the independent variables. However, there are over 15000 such combinations, so an exhaustive search method is impractical. Stepwise regression provides a quick and efficient solution to the problem, as follows. In the first step the dependent variable is regressed on only one of the independent variables. The independent variable chosen is the one which gives the best prediction equation when it alone is in the regression. Normally it is the variable which has the highest simple correlation with the independent variable. In the second step another independent variable is added to the regression. This variable is the one which gives the best two-term prediction equation in conjunction with the first variable. Other steps then follow, each one adding one independent variable to the regression. The procedure stops when either all the variables are in the equation or when the addition of another variable would not improve significantly the resulting prediction equation.

The two methods of regression, fixed and stepwise, can in fact be mixed. This means that certain variables can be forced into the regression, then other variables added in stepwise mode.

The method used in this study is stepwise multiple regression but with the inclusion level set to zero and the order of inclusion determined initially by the researcher. Subsequently, as the study developed, the order of inclusion was modified.

The regression coefficients (B) and their level of significance are taken from the final equation, when all variables have been included.

The effect of the inclusion of each set of variables, and of each individual variable, can be obtained from an examination of the tolerance and of the F score which would determine the order of inclusion in ordinary stepwide regression. A large tolerance suggests that a new dimension has been introduced into the analysis. In addition R^2 gives the amount of the variance explained the combination of independent variables in the equation, and R^2 change gives the improvement produced by the inclusion of a new variable into the equation.

Coding

The data relating to each child living in Hanley on the day of the census in 1871 was prepared for the computer by coding in the following way:

1. The data for each child was recorded on one card.
2. The columns of each card were apportioned as follows:

Columns	
1 - 4	Reference number
5	Sex
6 - 7	Age
8	Status i.e. full-time scholar, half-time scholar,

	at home etc.
9 - 10	Number of children in the family group
11 - 12	Number of school-age children in the family
13 - 14	Number of scholars in the family
15 - 16	Number of brothers
17 - 18	Number of sisters
19 - 20	Position in the family (by birth order)
21 - 22	Position in the family (by sex and birth order)
23 - 24	Size of family group
25 - 26	Size of household group
27 - 28	Birthplace of child
29 - 30	Father's occupation
31 - 32	Social class of the family (based on parental occupation)
33 - 34	Father's birthplace
35 - 36	Father's age
37 - 38	Mother's occupation
39 - 40	Mother's birthplace
41 - 42	Mother's age
43 - 44	Family structure
45	Nature of family householding
46	Number of servants
47	Multiple occupancy
48 - 50	Rateable value of the family home (in pennies)
51 - 52	In receipt of relief
53 - 56	Co-ordinates to locate family home
57	School attended (if known)
58 - 60	Number of attendances
61	Standard attained
62 - 63	Distance from the nearest school

64 Identification of family group

65 Families with scholars over the age of 13

APPENDIX D

Summary tables for some of the important variables.

ENROLMENT: All children

DEPENDENT VARIABLE.. ST1

MEAN RESPONSE .65925 STD. DEV. .47399

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.79331	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.62933	REGRESSION	62.	1295.69143	20.89825
ADJUSTED R SQUARE	.62681	RESIDUAL	9102.	763.13736	.08384
STD DEVIATION	.28956	COEFF OF VARIABILITY	43.9 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		12624.45589	0.000	.76121	.57944	.57944	.76121
2	FAMPOS		301.26257	.000	.76995	.59283	.01339	.10499
3	FS4		.01272	.910	.76995	.59283	.00000	-.00854
	FS3		.23577	.627	.76996	.59283	.00000	-.00297
	FS6		.90278	.342	.76998	.59288	.00004	-.01278
	FS5		.99446	.319	.76998	.59288	.00000	-.00503
	FS8		.04236	.837	.77001	.59292	.00004	.00400
	FS7		.00738	.795	.77000	.59299	.00007	-.02791
	FS2		2.57302	.109	.77007	.59301	.00002	-.01144
	FS9		514.90330	.000	.78402	.61408	.02107	-.09912
4	T2		94.00021	.000	.78403	.61470	.00062	.02595
	T4		92.83987	.000	.78406	.61478	.00008	-.00694
	T3		204.99346	.000	.78598	.61777	.00298	-.04325
	T1		132.57219	.000	.78945	.62322	.00546	.09012
5	AGEC		70.29389	0.000	.79126	.62610	.00287	-.05002
6	SC3		1.42284	.233	.79127	.62610	.00000	-.00045
	SC4		5.56674	.018	.79135	.62623	.00013	.03270
	SC5		3.93599	.048	.79138	.62628	.00005	.01971
	SC2		3.66577	.056	.79141	.62632	.00005	.03579
	SC8		1.20756	.272	.79145	.62639	.00006	-.03620
	SC6		4.18394	.041	.79155	.62654	.00016	.03449
	SC7		2.28447	.131	.79160	.62664	.00009	.02675
7	NVO		8.91710	.003	.79183	.62700	.00036	-.10056
8	B8		.17139	.679	.79188	.62707	.00007	-.00400
	B2		.52139	.470	.79194	.62716	.00009	.00758
	B6		.47292	.492	.79194	.62717	.00001	.00382
	B7		.00091	.976	.79196	.62723	.00006	-.01735
	B4		.54264	.462	.79200	.62726	.00003	-.00358
	B5		.00022	.988	.79233	.62779	.00053	.00329
	B3		1.09884	.295	.79233	.62779	.00000	-.04476
	B1		1.14151	.286	.79236	.62783	.00005	.01972
9	SV1		8.33826	.004	.79257	.62817	.00034	.03004
10	AGEP		2.91864	.088	.79265	.62829	.00012	.00965
11	FB8		1.39287	.238	.79268	.62833	.00004	.01112
	FB5		.14825	.700	.79268	.62835	.00001	.00770
	FB4		.79262	.374	.79271	.62839	.00005	.01601
	FB3		.55122	.458	.79273	.62843	.00003	.00866
	FB6		.17142	.679	.79273	.62843	.00000	.00710
	FB7		.02208	.880	.79279	.62852	.00009	-.03519
	FB2		.21202	.645	.79280	.62853	.00001	.01641
	FB1		.46869	.494	.79281	.62855	.00002	.04492

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE	SCHOOL (CREATION DATE = 21/03/77)		ATTEND IN MANLEY 1871				
12	UF3	2.28969	.131	.79284	.62866	.00005	-.01426
	UF2	2.08398	.142	.79287	.62864	.00004	-.00473
	UF1	1.99016	.158	.79292	.62872	.00008	.04414
13	AGEM	.87838	.349	.79294	.62876	.00004	.07593
14	MB8	.00554	.941	.79297	.62881	.00005	-.02136
	MB5	2.05889	.152	.79298	.62881	.00000	.02736
	MB4	1.51659	.218	.79303	.62889	.00008	.01976
	MB2	2.92657	.087	.79303	.62889	.00000	.01739
	MB3	2.76129	.097	.79303	.62889	.00000	-.01262
	MB6	2.37383	.124	.79303	.62889	.00000	.00721
	MB7	1.00753	.316	.79305	.62893	.00004	-.04099
	MB1	3.15876	.076	.79313	.62906	.00013	.03659
15	UM3	.00277	.774	.79316	.62910	.00004	.00774
	UM5	.00490	.944	.79317	.62911	.00001	.00507
	UM4	.00758	.784	.79316	.62914	.00002	.00540
	UM2	.00002	.996	.79322	.62920	.00007	.01570
	UM1	.01229	.434	.79324	.62923	.00002	.01140
16	RATES	1.82130	.177	.79329	.62930	.00007	.02497
17	M2	.42359	.515	.79330	.62932	.00002	-.00973
	M3	.07208	.788	.79330	.62932	.00000	-.01692
	M1	.31682	.574	.79331	.62933	.00001	-.00259

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 00,34320 STD. DEV. 47,00010

VARIABLE 3 IS A CONSTANT, INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	,21885	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	,04790	REGRESSION	52.	4/1707,10590	90/1,29206
ADJUSTED R SQUARE	,03002	RESIDUAL	4390.	93/000/,30290	2135,91967
STD DEVIATION	46,21001	COEFF OF VARIABILITY	89,7 PCT		

* MULTIPLE REGRESSION * * * * * * *

DEPENDENT VARIABLE.. PRATIO

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		,31044	,574	,01937	,00038	,00038	-,01937
	FS6		5,02029	,025	,03950	,00150	,00119	-,03433
	FS4		,05100	,821	,03991	,00159	,00003	-,00501
	FS8		,20194	,653	,04099	,00160	,00001	,00314
	FS5		,00003	,960	,04040	,00164	,00004	-,00525
	FS7		11,22705	,001	,07050	,00497	,00333	-,05052
	FSJ		,05508	,814	,07153	,00512	,00015	-,00937
	FS9		104,44077	,000	,10737	,02001	,02089	,15009
2	T2		,00750	,369	,10912	,02004	,00059	,01754
	T4		4,92294	,027	,17526	,03072	,00212	-,02775
	T3		0,93550	,009	,18624	,03469	,00397	,03539
	T1		,00001	,997	,18624	,03469	,00000	-,04496
3	SC3		1,99307	,158	,18877	,03564	,00095	-,03253
	SC4		,00004	,977	,18878	,03564	,00000	-,00417
	SC5		,15321	,696	,18914	,03577	,00014	,00700
	SC2		,72048	,394	,18987	,03605	,00028	,01756
	SC8		1,09088	,193	,19043	,03629	,00253	-,00358
	SC6		,02574	,873	,19043	,03629	,00000	-,00958
	SC7		,03017	,862	,19045	,03629	,00001	-,01250
4	NV0		5,45034	,020	,19944	,03976	,00116	,02804
5	NOFCHIL		5,20105	,023	,20225	,04091	,00113	-,02687
6	SV1		,09537	,758	,20230	,04093	,00002	-,04804
7	RATES		,08307	,772	,20235	,04094	,00002	,01972
8	R3		3,90047	,047	,20440	,04178	,00083	-,03174
	R2		,01000	,307	,20481	,04195	,00017	-,02220
	R1		,00592	,438	,20517	,04209	,00015	-,01801
9	AGEP		4,28703	,039	,20742	,04302	,00093	-,04539
10	FB6		,01350	,434	,20790	,04322	,00020	-,01008
	FB0		,02701	,869	,20790	,04322	,00000	-,00495
	FB5		,04420	,834	,20843	,04344	,00022	-,02542
	FB4		,00020	,989	,20860	,04352	,00007	-,02621
	FB2		,00083	,776	,20864	,04353	,00002	-,00101
	FB7		,47097	,493	,21041	,04427	,00074	-,04630
	FBJ		,00002	,990	,21100	,04455	,00027	-,01980
	FB1		,17151	,679	,21115	,04456	,00004	,00771
11	UP3		,26202	,590	,21141	,04469	,00011	-,03812
	UP2		,00209	,959	,21157	,04476	,00007	-,01901
	UP1		,97288	,324	,21287	,04497	,00021	,01567
12	AGEM		,02230	,881	,21298	,04498	,00000	-,00089

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN HAMLEY 1071

13	MB8	1,54502	,214	,21230	,04507	,00009	-,01330
	MB5	,01300	,434	,21283	,04530	,00023	,00299
	MB4	,77159	,380	,21350	,04558	,00028	-,00100
	MB2	1,74150	,187	,21550	,04582	,00024	-,02521
	MB3	4,95955	,026	,21808	,04668	,00100	-,05102
	MB0	1,00994	,297	,21868	,04009	,00001	-,00935
	MB7	2,05543	,104	,21711	,04713	,00044	-,05502
	MB1	1,01309	,315	,21761	,04735	,00022	-,00170
14	UM3	,00015	,990	,21761	,04736	,00000	-,01540
	UM4	,92700	,336	,21810	,04700	,00024	,00312
	UM5	,00017	,309	,21875	,04785	,00020	-,00000
	UM2	,03974	,842	,21885	,04790	,00004	-,01302
	UM1	,00157	,900	,21885	,04790	,00000	-,07252

ENROLMENT: Boys

DEPENDENT VARIABLE.. ST1

MEAN RESPONSE .65909 STD. DEV. .47467

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.77693	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.60362	REGRESSION	62.	614.26646	9.9074.
ADJUSTED R SQUARE	.59812	RESIDUAL	4466.	403.30822	.0903.
STD DEVIATION	.30053	COEFF OF VARIABILITY	45.6 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		6695.62480	0.000	.77752	.57384	.57384	.75752
2	PAMPUS		77.88762	.000	.78227	.58105	.00721	.27488
3	FS3		.85565	.815	.78229	.58109	.00004	.00767
	FS5		.53991	.463	.78230	.58110	.00001	-.01152
	FS6		.83468	.361	.78235	.58118	.00009	-.01817
	FS8		.02619	.887	.78237	.58121	.00003	.00137
	FS4		.48327	.496	.78242	.58128	.00007	-.02421
	FS7		.42603	.517	.78242	.58128	.00000	-.02269
	FS2		3.98600	.046	.78256	.58152	.00021	-.02151
	FS9		134.88625	.000	.77847	.59362	.01213	-.06517
4	T2		7.09173	.008	.77847	.59362	.00000	.01484
	T4		5.37591	.021	.77864	.59383	.00021	-.05351
	T3		16.91327	.000	.77111	.59461	.00078	-.05570
	T1		9.20014	.002	.77104	.59543	.00082	.06709
5	AGEC		52.34005	.000	.77464	.60007	.00464	-.07576
6	SC3		.00646	.936	.77464	.60007	.00000	-.00748
	SC4		.01081	.432	.77484	.60038	.00031	.02951
	SC5		.29367	.588	.77496	.60059	.00021	.02576
	SC2		.05545	.814	.77498	.60059	.00000	.01962
	SC8		.07457	.785	.77499	.60061	.00001	-.23445
	SC6		.00121	.972	.77503	.60066	.00006	.02656
	SC7		.04774	.827	.77503	.60067	.00000	.22078
7	NVO		.91859	.340	.77508	.60075	.00008	-.05140
8	B8		.01922	.432	.77518	.60092	.00015	-.01730
	B6		.07021	.791	.77518	.60091	.00001	.00451
	B4		.00544	.941	.77523	.60099	.00008	.00421
	B7		.23035	.631	.77536	.60109	.00010	-.22078
	B2		.00340	.953	.77549	.60138	.00029	.02355
	B5		.23259	.630	.77599	.60217	.00079	.01567
	B3		.03146	.859	.77600	.60218	.00001	-.24276
	B1		.00291	.882	.77601	.60218	.00001	-.00040
9	SV1		.14842	.700	.77604	.60219	.00001	-.00980
10	AGEF		.45758	.499	.77605	.60223	.00004	.05989
11	FB8		.18293	.669	.77610	.60225	.00002	.00082
	FB4		.07393	.786	.77613	.60233	.00007	.01257
	FB5		.04856	.826	.77615	.60237	.00004	.02958
	FB3		.00581	.939	.77616	.60248	.00011	-.00552
	FB6		.01061	.897	.77624	.60242	.00002	.01974
	FB7		.34033	.560	.77626	.60254	.00012	-.04478
	FB2		.02759	.868	.77626	.60256	.00003	.01372
	FB1		.00061	.980		.60256	.00000	.03419

ATTENDANCE OF ALL CHILDREN 27/09/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

12	OF3	.33035	.502	.77626			
	OF2	.88989	.346	.77628	.60258	.00001	-.00325
	OF1	.90520	.326	.77633	.60266	.00002	.00366
13	AGEM	.00202	.904	.77633	.60269	.00003	.02932
14	MB8	.52073	.468	.77644	.60269	.00000	.02694
	MB5	.86324	.841	.77648	.60280	.00011	-.04341
	MB4	.03240	.857	.77643	.60286	.00001	.02635
	MB3	.26713	.605	.77646	.60285	.00005	.83107
	MB2	.07660	.782	.77647	.60289	.00004	-.00979
	MB6	.38024	.538	.77649	.60298	.00001	.03175
	MB7	.04827	.826	.77657	.60304	.00003	.01421
	MB1	.17630	.675	.77658	.60307	.00002	.02029

ENROLMENT: GIRLS

MEAN RESPONSE .05940 STD. DEV. .47396

VARIABLE FS6 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.81202	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.65937	REGRESSION	61.	686.53657	11.25476
ADJUSTED R SQUARE	.65483	RESIDUAL	4574.	354.66339	.07754
STD DEVIATION	.27846	COEFF OF VARIABILITY	42.2 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		6526.83428	0.000	.76472	.58480	.58480	.76472
2	FAMPOS		245.86099	0.000	.77828	.60572	.02092	.13334
3	FS4		1.11925	.290	.77830	.60576	.00004	.00450
	FS8		.01547	.898	.77834	.60581	.00005	.00671
	FS3		.89479	.344	.77834	.60582	.00001	-.01375
	FS5		.44859	.503	.77835	.60582	.00001	.00054
	FS7		.91115	.340	.77853	.60610	.00028	-.03305
	FS2		.01408	.906	.77856	.60615	.00004	-.00102
	FS9		401.10418	0.000	.79848	.63757	.03142	-.12817
4	T2		85.92015	.000	.79853	.63765	.00007	.03770
	T4		88.20649	.000	.79855	.63768	.00003	-.00005
	T3		197.88930	.000	.80175	.64281	.00513	-.03229
	T1		130.19377	.000	.80783	.65266	.00979	.11144
5	AGEC		20.09441	.000	.80876	.65414	.00150	-.02512
6	SC3		3.21917	.073	.80877	.65411	.00001	-.00576
	SC5		5.68354	.017	.80877	.65411	.00000	.01305
	SC4		6.62528	.010	.80878	.65412	.00001	.03599
	SC2		9.46515	.002	.80891	.65433	.00021	.05166
	SC8		3.94512	.047	.80899	.65447	.00014	-.03794
	SC6		9.37822	.002	.80919	.65479	.00033	.04221
	SC7		6.42169	.011	.80949	.65527	.00048	.03266
7	NVO		6.77526	.009	.80989	.65593	.00065	-.14392
8	B8		.18021	.671	.80990	.65594	.00001	.01102
	B2		1.37190	.242	.80991	.65596	.00002	-.00981
	B6		.29828	.585	.80997	.65606	.00010	.00310
	B7		.23213	.630	.81000	.65609	.00004	-.01403
	B4		1.65696	.198	.81000	.65609	.00000	-.01160
	B5		.41732	.518	.81018	.65639	.00030	-.00892
	B3		2.01705-	.156	.81019	.65641	.00002	-.04668
	B1		1.76254	.185	.81027	.65654	.00013	.03985
9	SV1		10.70392	.001	.81076	.65734	.00080	.00825
10	AGEF		2.56401	.110	.81088	.65753	.00019	.11645
11	FB8		1.53088	.216	.81093	.65761	.00008	.02090
	FB5		.05493	.815	.81102	.65775	.00014	-.01367
	FB3		.75300	.386	.81103	.65776	.00002	.02170
	FB4		.81019	.368	.81105	.65780	.00003	.02459
	FB6		.12447	.724	.81107	.65783	.00003	-.00605
	FB2		.52901	.467	.81107	.65783	.00000	.02326
	FB7		.07677	.782	.81111	.65790	.00007	-.03014
	FB1		.70631	.401	.81114	.65795	.00005	.05526
12	OF3		2.53218	.112	.81121	.65807	.00011	-.02545
	OF2		2.09913	.148	.81126	.65814	.00007	-.01241
	OF1		1.27475	.259	.81132	.65824	.00009	.05854

ATTENDANCE OF ALL CHILDREN 28/09/77 PA

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

13	AGEM	1.34747	.246	.81138	.65834	.00010	.12137
14	MB8	.49129	.484	.81139	.65836	.00002	-.00301
	MB2	3.90008	.047	.81144	.65843	.00008	.03296
	MB5	2.80462	.094	.81144	.65843	.00000	.02838
	MB4	2.02866	.155	.81148	.65850	.00006	.00754
	MB3	2.76567	.097	.81149	.65851	.00001	-.01425
	MB6	1.90655	.168	.81149	.65852	.00001	.00006
	MB7	2.34883	.126	.81149	.65852	.00000	-.03700
	MB1	3.62440	.057	.81166	.65879	.00027	.05227
15	UM3	.00156	.969	.81166	.65880	.00000	.01004
	UM5	.17408	.677	.81167	.65880	.00000	.00671
	UM4	1.53408	.216	.81174	.65893	.00013	.01735
	UM2	.31098	.577	.81178	.65898	.00005	.02280
	UM1	.02481	.875	.81178	.65898	.00000	.05528
16	RATES	4.12748	.042	.81197	.65929	.00031	.00690
17	R3	.42988	.513	.81198	.65932	.00003	-.02542
	R2	.66870	.414	.81201	.65937	.00005	.00171
	R1	.04502	.832	.81202	.65937	.00000	.00844

ENROLMENT: Children age 3 and 4

MEAN RESPONSE .51176 STD. DEV. .50000

VARIABLE DF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.83434	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.69612	REGRESSION	61.	325.25439	5.33204
ADJUSTED R SQUARE	.68586	RESIDUAL	1808.	141.98678	.07853
STD DEVIATION	.28024	COEFF OF VARIABILITY	54.8 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		3375.86283	0.000	.80232	.64372	.64372	.80232
2	PAMPOS		.08410	.437	.80239	.64383	.00012	.13163
3	FS6		.00063	.926	.80239	.64384	.00000	-.02366
	FS5		.16364	.686	.80240	.64384	.00000	-.01445
	FS4		1.12400	.289	.80251	.64402	.00019	-.01431
	FS8		.10871	.742	.80255	.64409	.00007	-.00173
	FS3		.14098	.708	.80256	.64411	.00002	-.02664
	FS7		.42153	.516	.80257	.64412	.00001	-.03444
	FS2		1.61871	.204	.80283	.64454	.00042	.04721
	FS9		158.78004	0.000	.82667	.67251	.02797	-.07266
4	T2		1.94891	.163	.82812	.67260	.00009	-.00320
	T4		4.34546	.037	.82814	.67262	.00002	-.00510
	T3		2.13079	.145	.82832	.67292	.00030	-.00259
	T1		4.94080	.026	.82885	.67379	.00087	.11029
5	AGEC		78.45620	.000	.82887	.68703	.01324	.18452
6	SC2		.26879	.604	.82888	.68704	.00001	-.00257
	SC4		.03301	.856	.82920	.68756	.00054	-.04140
	SC5		1.12112	.290	.82921	.68756	.00001	-.01034
	SC3		.00588	.943	.82955	.68815	.00057	-.00325
	SC8		.74452	.388	.82959	.68823	.00008	-.03459
	SC6		.71059	.399	.82982	.68861	.00038	.00365
	SC7		1.75034	.186	.83000	.68890	.00029	.00351
7	NVO		.00766	.930	.83000	.68890	.00000	-.13598
8	B8		1.19147	.275	.83020	.68923	.00033	-.01431
	B7		2.24713	.134	.83052	.68977	.00054	-.00077
	B2		.02235	.881	.83059	.68988	.00011	-.00773
	B4		.16567	.684	.83077	.69018	.00030	-.05062
	B5		.00232	.962	.83077	.69018	.00000	.01076
	B6		.00645	.797	.83083	.69027	.00009	.00449
	B3		.15581	.693	.83105	.69064	.00037	-.03349
	B1		.00022	.988	.83105	.69064	.00000	.03834
9	SV1		2.47050	.116	.83136	.69106	.00042	.07034
10	FB6		.79827	.372	.83168	.69169	.00063	-.03917
	FB5		4.45774	.035	.83175	.69181	.00013	-.04377
	FB4		5.24336	.022	.83198	.69220	.00038	-.03277
	FB3		5.39373	.020	.83243	.69294	.00074	-.02408
	FB7		3.97648	.046	.83258	.69318	.00024	-.03413
	FB8		2.02829	.156	.83258	.69318	.00000	.02396
	FB2		2.77275	.096	.83282	.69325	.00026	.01345
	FB1		2.39124	.122	.83286	.69365	.00040	.00263
11	OF3		.05016	.823	.83286	.69365	.00000	.00451
	OF2		.00209	.904	.83286	.69366	.00001	-.03626
	OF1		.11156	.738	.83287	.69368	.00002	.00013

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE	SCHOOL (CREATION DATE = 21/03/77)		ATTEND IN MANLEY 1871				
12	AGEM	2.59865	.107	.83313	.69411	.00044	.06401
13	MB8	.55035	.456	.83317	.69417	.00005	.01405
	MB5	.12768	.721	.83317	.69418	.00001	.00746
	MB4	.06269	.802	.83321	.69425	.00007	-.02425
	MB2	.21628	.642	.83322	.69425	.00001	-.00117
	MB3	.00280	.957	.83366	.69502	.00076	-.03416
	MB6	.19480	.659	.83369	.69504	.00002	.01753
	MB7	.41820	.518	.83369	.69504	.00000	-.03434
	MB1	.48763	.485	.83374	.69512	.00005	.00047
14	OM3	.82169	.883	.83375	.69513	.00001	.01752
	OM4	3.00128	.084	.83419	.69587	.00074	.03960
	OM5	.00039	.936	.83419	.69588	.00001	.00034
	OM2	.00007	.993	.83420	.69589	.00001	.03636
	OM1	.02075	.885	.83420	.69589	.00000	-.01459
15	RATES	.19008	.663	.83422	.69592	.00003	-.07953
16	R2	.65847	.417	.83429	.69603	.00011	.00541
	R3	.38396	.562	.83432	.69608	.00005	.01151
	R1	.19041	.658	.83434	.69612	.00003	.02449

ENROLMENT: SCHOOL-AGE CHILDREN (5-12)

DEPENDENT VARIABLE.. ST1

MEAN RESPONSE .74115 STD. DEV. .43804

VARIABLE OF4 IS A CONSTANT, INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.81046	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.65684	REGRESSION	61.	829.84221	13.59660
ADJUSTED R SQUARE	.65363	RESIDUAL	6517.	433.12955	.06646
STD DEVIATION	.25780	COEFF OF VARIABILITY	34.8 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		9954.77483	0.000	.77593	.60200	.60200	.77593
2	FAPPOS		298.34268	.000	.78698	.61933	.01727	.69639
3	FS6		5.00519	.025	.78717	.61963	.00033	.01031
	FS3		.10783	.743	.78717	.61963	.00000	.00187
	FS4		.65892	.417	.78717	.61964	.00001	-.00727
	FS5		1.30062	.254	.78718	.61965	.00001	-.01166
	FS8		.09117	.763	.78718	.61966	.00000	.00071
	FS7		.02597	.872	.78722	.61971	.00005	-.02055
	FS2		.75455	.385	.78722	.61971	.00000	-.01569
	FS9		274.00219	.000	.79083	.63494	.01523	-.09413
4	T2		59.15250	.000	.79083	.63494	.00000	.22448
	T4		58.53182	.000	.79096	.63514	.00020	-.00123
	T3		147.40956	0.000	.79984	.63847	.00333	-.03847
	T1		87.14474	.000	.80200	.64326	.00474	.07849
5	AGEC		171.54897	.000	.80765	.65229	.00903	-.13112
6	SC3		2.43712	.119	.80787	.65253	.00024	.02622
	SC4		4.65507	.031	.80784	.65260	.00027	.04338
	SC5		.58914	.443	.80786	.65263	.00003	.00949
	SC2		1.44077	.229	.80788	.65264	.00001	.03428
	SC8		.58756	.476	.80792	.65273	.00009	-.04336
	SC6		3.31654	.069	.80810	.65312	.00039	.03770
	SC7		1.07181	.301	.80820	.65318	.00006	.02656
7	MY0		10.35590	.001	.80853	.65373	.00055	-.09379
8	B8		2.31585	.128	.80854	.65373	.00001	-.01693
	B6		3.84008	.082	.80854	.65373	.00000	.00846
	B2		2.92998	.087	.80857	.65379	.00005	.00562
	B4		2.81794	.094	.80858	.65381	.00002	.00060
	B7		.21544	.643	.80870	.65399	.00018	-.02365
	B5		1.72583	.189	.80885	.65424	.00026	-.02655
	B3		3.00884	.058	.80885	.65424	.00000	-.05098
	B1		3.77083	.052	.80898	.65444	.00020	.02714
9	SY1		5.17766	.023	.80915	.65472	.00027	.01665
10	FB8		.00726	.436	.80915	.65472	.00000	.02918
	FB4		6.39320	.012	.80922	.65483	.00012	.01737
	FB5		4.08882	.031	.80923	.65485	.00001	.01988
	FB3		6.57119	.011	.80939	.65511	.00026	.04360
	FB6		3.02467	.082	.80939	.65511	.00000	.00003
	FB7		1.01857	.204	.80942	.65516	.00005	-.04278
	FB2		3.13356	.077	.80944	.65519	.00002	.02984
	FB1		4.49323	.034	.80956	.65542	.00024	.04275
11	OF3		3.17298	.075	.80964	.65551	.00009	-.02332
	OF2		4.34756	.037	.80974	.65567	.00016	-.01280
	OF1		1.26479	.261	.80978	.65574	.00007	.04976

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1071

12	AGEM	.32620	.567	.80979	.65576	.00002	.05346
13	MB8	.25133	.616	.80980	.65587	.00012	-.03849
	MB5	.06560	.415	.80989	.65592	.00005	.03244
	MB4	.48351	.487	.81002	.65613	.00020	.01711
	MB2	2.04549	.153	.81003	.65615	.00002	.02276
	MB3	1.88808	.170	.81004	.65616	.00001	-.01366
	MB6	.91930	.338	.81004	.65616	.00000	.00110
	MB7	.50823	.476	.81006	.65620	.00004	-.04067
	MB1	1.79008	.181	.81012	.65629	.00009	.03714
14	UM3	1.85093	.173	.81022	.65646	.00016	.01185
	UM5	.49828	.480	.81024	.65649	.00003	.00013
	UM4	.00398	.950	.81024	.65649	.00000	-.00097
	UM2	.75877	.384	.81033	.65664	.00015	.02161
	UM1	.00151	.969	.81033	.65664	.00000	.03756
15	RATES	.49282	.483	.81035	.65667	.00003	.01693
16	R3	.14932	.699	.81035	.65667	.00001	-.03342
	R2	.97100	.325	.81038	.65672	.00005	-.00636
	R1	2.22319	.136	.81046	.65684	.00012	.00396

ENROLMENT: Children age 13

MEAN RESPONSE .29190 STD. DEV. .45495

VARIABLE AGEC IS A CONSTANT, INCLUSION LEVEL SET TO ZERO.

VARIABLE OF4 IS A CONSTANT, INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.70806	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.50136	REGRESSION	60.	74,19716	1.2366
ADJUSTED R SQUARE	.45568	RESIDUAL	655.	73,79580	.1126
STD DEVIATION	.33566	COEFF OF VARIABILITY	115.0 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		334,57391	.000	.56467	.31908	.31908	.56487
2	FAMPOS		58,01185	.000	.66308	.36371	.04463	.69419
3	FS5		.15013	.693	.66374	.36451	.00080	.64112
	FS3		.04534	.831	.66417	.36502	.00052	-.00236
	FS4		.03933	.843	.66423	.36509	.00007	-.02481
	FS6		.03324	.855	.66424	.36511	.00002	-.03398
	FS8		.00107	.974	.66431	.36518	.00007	-.05384
	FS7		.01211	.912	.66442	.36532	.00014	-.05989
	FS2		3,78426	.055	.66622	.36750	.00218	-.05474
	FS9		55,08881	.000	.66328	.41386	.04634	-.16141
4	T2		10,00951	.002	.64727	.41896	.00510	.16527
	T4		2,44170	.119	.64727	.41896	.00000	-.02392
	T3		17,05380	.000	.65666	.43034	.01137	-.02498
	T1		3,71407	.054	.65829	.43334	.00300	.06302
5	SC3		4,28956	.039	.66132	.43735	.00401	.09313
	SC4		5,30424	.022	.66748	.44542	.00807	.15847
	SC2		5,85527	.025	.67115	.45044	.00502	.14466
	SC5		6,52752	.011	.68132	.46426	.01378	.15363
	SC8		.24954	.618	.68155	.46451	.00031	.00002
	SC6		.48671	.486	.68382	.46701	.00310	.00874
	SC7		.00276	.958	.68382	.46701	.00000	-.10058
6	AV0		.86490	.353	.68434	.46827	.00066	-.04054
7	B6		.43734	.509	.68442	.46843	.00016	.01971
	B2		.29797	.585	.68452	.46856	.00013	.01173
	B7		.36334	.547	.68539	.46976	.00120	-.02532
	B8		3,73728	.054	.68736	.47247	.00270	.05825
	B5		1,78366	.182	.69025	.47645	.00398	.00950
	B3		.21834	.640	.69029	.47651	.00006	-.02579
	B4		.74941	.387	.69133	.47794	.00144	-.00120
	B1		.11731	.732	.69140	.47803	.00009	-.02264
8	SV1		.37170	.542	.69160	.47831	.00028	-.01611
9	AGEP		1,13110	.288	.69223	.47918	.00086	.18436
10	FB5		.25708	.612	.69223	.47918	.00000	.03026
	FB3		.50441	.478	.69267	.47979	.00061	.04277
	FB6		.36135	.548	.69272	.47987	.00008	-.01659
	FB4		.00155	.969	.69418	.48189	.00202	.11506
	FB8		.62307	.430	.69496	.48299	.00110	.05347
	FB2		.23110	.631	.69512	.48320	.00020	.00706
	FB7		.16972	.680	.69522	.48333	.00013	.02169
	FB1		.58837	.476	.69558	.48372	.00039	.04014
11	OF3		2,86840	.091	.69648	.48497	.00126	-.00126
	OF2		1,59195	.207	.69661	.48499	.00002	-.00834
	OF1		5,49502	.019	.69940	.48917	.00418	-.04066

ATTENDANCE OF ALL CHILDREN 03/10/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

12	MB4	1,18538	.293	.69983	.48976	.00000	.00032
	MB8	.37072	.543	.69989	.48985	.00009	.00541
	MB5	2,83236	.154	.70191	.49267	.00282	.00556
	MB3	1,21897	.272	.70390	.49548	.00281	.00945
	MB2	.08225	.774	.70395	.49555	.00007	.00457
	MB6	.17597	.675	.70398	.49558	.00003	.00472
	MB7	.22229	.637	.70495	.49696	.00138	-.02121
	MB1	.29765	.586	.70511	.49718	.00022	-.01423
13	OM4	.02246	.881	.70515	.49724	.00006	.01026
	OM3	.64742	.421	.70520	.49739	.00015	-.02616
	OM5	.52733	.468	.70537	.49754	.00015	-.01826
	OM2	.23595	.627	.70538	.49756	.00001	-.04476
	OM1	.45371	.501	.70562	.49790	.00035	.15959
14	RATES	1,98394	.160	.70605	.49935	.00145	.19011
15	R2	.14264	.706	.70671	.49944	.00009	-.01729
	R3	.59398	.441	.70697	.49981	.00037	-.02532
	R1	2,02992	.155	.70806	.50136	.00155	-.00853

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

* MULTIPLE REGRESSION * * * * * * * *

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 58.03758 STD. DEV. 54.24559

VARIABLE FS0 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE NOFCHIL IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE MB8 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.31363	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.09837	REGRESSION	49.	138357.14945	2823.61525
ADJUSTED R SQUARE	-.00462	RESIDUAL	429.	1268198.17414	2956.1729.
STD DEVIATION	54.37070	COEFF OF VARIABILITY	93.7 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		1.04139	.308	.04102	.00168	.00168	.04102
	FS9		.05106	.820	.05459	.00298	.00130	.03542
	FS4		1.29975	.255	.07478	.00559	.00261	.05014
	FS5		.10587	.745	.07592	.00576	.00017	.01473
	FS8		1.00498	.303	.08942	.00792	.00215	.04288
	FS7		1.05149	.199	.10915	.01191	.00399	-.00935
	FS3		2.35416	.120	.12972	.01683	.00491	.06049
2	T2		.11746	.732	.13453	.01810	.00127	.03450
	T4		1.40825	.236	.14789	.02187	.00377	-.03342
	T3		.99515	.342	.15006	.02252	.00064	-.01503
	T1		.04264	.423	.15447	.02386	.00134	.01357
3	SC8		.04524	.832	.16262	.02645	.00259	-.00051
	SC3		.19039	.663	.16340	.02670	.00025	.02553
	SC4		.33047	.562	.16755	.02807	.00137	.04949
	SC5		1.15500	.283	.19095	.03679	.01071	.10416
	SC2		.10352	.748	.19764	.03906	.00227	.01793
	SC6		.00122	.972	.19946	.03979	.00072	-.05356
	SC7		.02373	.878	.19959	.03984	.00005	-.00789
4	NVC		4.23024	.040	.22046	.04860	.00877	-.10716
5	SV1		.15756	.692	.22120	.04893	.00033	-.05562
6	RATES		.00744	.931	.22124	.04895	.00002	.03607
7	R3		.68337	.409	.22402	.05018	.00124	-.03619
	R2		1.00691	.316	.22849	.05221	.00202	-.05135
	R1		.30997	.578	.22990	.05285	.00065	-.01561
8	AGEF		2.87385	.091	.24254	.05882	.00597	.06041
9	FB6		.18313	.669	.24255	.05883	.00001	.01174
	FB8		.54313	.462	.24420	.05964	.00081	.05014
	FB4		.19139	.662	.24436	.05971	.00007	.00969
	FB5		.25181	.616	.24483	.05994	.00023	.01889
	FB2		.22819	.639	.24548	.06022	.00028	.01944
	FB7		.00894	.976	.24641	.06072	.00050	-.06034
	FB3		.02539	.873	.25063	.06282	.00210	-.03560
	FB1		.26940	.604	.25176	.06338	.00057	.01623
10	OF3		.07607	.783	.25191	.06346	.00008	-.02244
	OF2		.91859	.338	.25850	.06682	.00336	.03756
	OF1		.18393	.668	.25925	.06721	.00039	-.02755
11	AGEM		.24950	.618	.26027	.06774	.00053	-.01798

ATTENDANCE OF ALL CHILDREN 28/09/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

12	MB2	.93200	.335	.26082	.06803	.00029	-.02202
	MB4	1.28740	.257	.26287	.06910	.00108	.02212
	MB3	.74366	.389	.26416	.06978	.00068	-.02851
	MB5	1.36372	.244	.26660	.07106	.00128	.03078
	MB6	.23421	.629	.27167	.07381	.00345	-.03666
	MB7	.00386	.841	.27285	.07720	.00339	-.10250
	MB1	1.15753	.283	.28223	.07965	.00245	.04959
13	OM3	3.22442	.073	.30238	.09143	.01178	-.09038
	OM4	1.35029	.245	.30767	.09466	.00323	-.05135
	OM2	.00526	.942	.31194	.09731	.00265	.03291
	OM5	.02258	.881	.31288	.09789	.00058	.00529
	OM1	.22518	.635	.31363	.09837	.00047	-.02081

ENROLMENT: FAMILIES WITH FIVE CHILDREN

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 66.98880 STD. DEV. 40.56373

VARIABLE FS6 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE FS8 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE NOFCHIL IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.33818	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.11437	REGRESSION	49.	95032.88960	1939.44673
ADJUSTED R SQUARE	.08929	RESIDUAL	456.	735902.49138	1613.82125
STD DEVIATION	40.17239	COEFF OF VARIABILITY	58.2 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		.22491	.636	.02245	.00050	.00050	.02245
	FS4		.43325	.511	.03070	.00135	.00085	-.02952
	FS9		.00007	.993	.03676	.00135	.00000	-.00053
	FS5		1.43404	.232	.06559	.00430	.00295	.05379
	FS7		3.07817	.056	.10782	.01163	.00732	-.08681
	FS3		.09999	.752	.10874	.01182	.00020	.01409
2	T2		.08413	.409	.10983	.01206	.00024	-.01481
	T4		1.07909	.299	.11584	.01342	.00136	-.03462
	T3		1.26189	.273	.13044	.01701	.00360	-.05554
	T1		.56391	.453	.13466	.01813	.00112	.05488
3	SC3		.35193	.553	.13581	.01844	.00031	-.01769
	SC4		1.06131	.303	.13600	.01850	.00005	-.00456
	SC2		3.15282	.076	.14696	.02160	.00310	.05517
	SC8		2.93424	.087	.16035	.02571	.00411	.06999
	SC5		2.17213	.141	.16576	.02747	.00176	.03382
	SC6		1.14696	.285	.16583	.02750	.00002	-.02225
	SC7		1.37386	.242	.17386	.03023	.00273	-.01637
4	AVO		.27465	.600	.17543	.03078	.00055	.00172
5	SV1		.20196	.653.	.17657	.03118	.00040	-.02489
6	MATES		.31055	.578	.17832	.03180	.00062	.03554
7	R3		.57498	.449	.18135	.03289	.00109	-.03631
	R2		1.37272	.242	.18824	.03544	.00255	-.05092
	R1		.78813	.378	.19234	.03699	.00156	-.01852
8	AGEF		5.35527	.021	.21817	.04760	.01060	-.02212
9	FM8		.83376	.362	.22064	.04868	.00108	.03405
	FM6		.00206	.883	.23129	.05349	.00481	-.00377
	FM4		.15258	.696	.23224	.05394	.00044	.00583
	FM3		.08018	.777	.23792	.05660	.00267	-.04522
	FM5		.79264	.374	.24189	.05851	.00191	.05353
	FM2		.44078	.524	.24239	.05875	.00024	.01998
	FM7		.03277	.856	.25656	.06582	.00707	-.04770
	FM1		.47572	.491	.25838	.06676	.00094	.04348
10	OF3		2.27803	.132	.27468	.07545	.00869	.08985
	OF2		1.34208	.247	.27621	.07629	.00084	-.07382
	OF1		1.43130	.232	.28124	.07909	.00280	-.03101
11	AGEM		.56232	.454	.28319	.08020	.00110	-.05926

ATTENDANCE OF ALL CHILDREN 28/09/77

FILE	SCHOOL	(CREATION DATE = 21/03/77)	ATTEND IN MANLEY 1871				
12	MS5	.91847	.338	.28402	.08067	.00047	.04557
	MS4	1.19512	.275	.28455	.08097	.00030	-.02218
	MS2	.98391	.322	.28552	.08152	.00055	.02251
	MS6	1.01770	.314	.28556	.08154	.00002	-.02536
	MS3	1.28582	.257	.28845	.08297	.00143	-.02189
	MS7	1.60115	.206	.29332	.08604	.00306	-.06157
	MS8	5.16741	.023	.31061	.09648	.01044	-.05543
	MS1	.95227	.330	.31366	.09834	.00186	.03453
13	OM4	.30631	.580	.31442	.09886	.00051	.00682
	OM5	1.15224	.284	.32269	.10297	.00411	.06194
	OM3	.06620	.794	.32094	.10304	.00007	-.01506
	OM2	.31402	.575	.33780	.11411	.01111	-.11356
	OM1	.13315	.715	.33818	.11437	.00026	.07064

ENROLMENT: All broken families

MEAN RESPONSE 71.66514 STD. DEV. 45.65412

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.38383	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUAR
R SQUARE	.14732	REGRESSION	52.	335011.40365	6442.527[illegible]
ADJUSTED R SQUARE	.10465	RESIDUAL	1039.	1938958.03825	1866.1771
STD DEVIATION	43.19927	COEFF OF VARIABILITY	60.3 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		.07292	.787	.12222	.01494	.01494	-.12222
	FS6		5.23252	.022	.14802	.02191	.00697	-.07861
	FS4		.00555	.798	.15084	.02275	.00084	-.02108
	FS8		.05928	.808	.15488	.02399	.00123	-.01669
	FS5		.00834	.927	.17106	.02926	.00527	-.04336
	FS7		3.31980	.069	.27032	.07307	.04381	-.15934
	FS3		.03908	.842	.30972	.09593	.02286	-.05892
	FS9		8.89243	.003	.32139	.10329	.00736	.30035
2	T4		1.17009	.280	.32141	.10330	.00001	.01902
	T2		.00514	.943	.32171	.10350	.00020	-.01142
	T3		4.23862	.040	.32842	.10786	.00436	.08953
	T1		.44321	.506	.32898	.10823	.00037	-.16997
3	SC3		4.10010	.043	.33308	.11094	.00272	.04211
	SC5		.00648	.369	.33343	.11117	.00023	-.00586
	SC4		1.14350	.285	.33413	.11164	.00047	.00432
	SC2		.35060	.554	.33428	.11174	.00010	.00443
	SC8		.41645	.519	.33587	.11283	.00109	-.09955
	SC6		1.97984	.160	.34004	.11563	.00280	-.00522
	SC7		.03139	.427	.34148	.11655	.00092	-.06239
4	NVO		.29814	.590	.34175	.11679	.00024	.13578
5	NOFCHIL		2.76956	.100	.34500	.11903	.00223	-.16358
6	SV1		4.11539	.043	.34980	.12240	.00338	-.17655
7	RATES		1.07481	.301	.35112	.12332	.00092	.06144
8	R3		2.13905	.144	.35304	.12466	.00178	-.05909
	R2		.20303	.652	.35386	.12523	.00057	-.06774
	R1		.00116	.974	.35388	.12523	.00000	-.05464
9	AGEF		2.16514	.140	.35640	.12702	.00179	-.07526
10	FB6		.02797	.867	.36114	.13042	.00340	-.07370
	FB8		.28850	.591	.36120	.13047	.00004	-.00575
	FB7		.37085	.543	.36162	.13077	.00030	-.04564
	FB5		1.26366	.261	.36182	.13091	.00014	-.01247
	FB4		2.56548	.110	.36305	.13180	.00103	.01415
	FB2		1.64333	.200	.36344	.13209	.00028	-.00794
	FB3		1.65430	.199	.36411	.13257	.00049	-.02036
	FB1		1.98943	.297	.36533	.13347	.00089	-.05313
11	OF3		.43176	.511	.36573	.13376	.00029	-.00146
	OF2		.00931	.346	.36728	.13490	.00114	-.07774
	OF1		.00314	.955	.36729	.13490	.00000	-.01332
12	AGEM		1.18005	.278	.36861	.13587	.00097	-.23631

ATTENDANCE OF ALL CHILDREN 27/09/77

FILE	SCHOOL (CREATION DATE = 21/03/77)					ATTEND IN MANLEY 1871
13	MB8	2.15847	.142	.36943	.13648	.00061	.01888
	MB7	2.00939	.103	.36973	.13670	.00022	-.00265
	MB4	6.19720	.013	.37011	.13698	.00028	-.03328
	MB6	3.38008	.066	.37016	.13702	.00004	-.03841
	MB5	4.78864	.030	.37017	.13703	.00000	-.05266
	MB3	5.71870	.017	.37027	.13710	.00008	-.06442
	MB2	5.75810	.017	.37041	.13721	.00011	-.06662
	MB1	6.34912	.012	.37739	.14242	.00522	-.12026
14	OM4	.37707	.539	.38007	.14445	.00203	-.00979
	OM5	.03386	.854	.38141	.14547	.00102	-.02003
	OM3	2.15895	.143	.38200	.14638	.00091	-.08009
	OM2	.01922	.432	.38201	.14639	.00000	-.07700
	OM1	1.14241	.285	.38383	.14732	.00094	-.15364

ENROLMENT: Families with neither father nor mother

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ATTENDANCE OF ALL CHILDREN                                          28/09/77

                    *SELECT IF      (FAMSTRUC EQ 9)
                    REGRESSION      VARIABLES=PRATIO,FS2 TO FS8,FS9,T1 TO T4,SC2 TO SC7,SC8,NVO,SV1,
                                    AGEF,FB1 TO FB8,OF1 TO OF4,AGEM,MB1 TO MB8,OM1 TO OM5,RATES,
                                    R1 TO R3,NOFCHIL/
                                    REGRESSION=PRATIO WITH FS2 TO FS8,FS9(28),T1 TO T4(26),
                                    SC2 TO SC7,SC8(24),NVO(22),NOFCHIL(20),SV1(18),RATES(16),
                                    R1 TO R3(14),AGEF(12),FB1 TO FB8(10),OF1 TO OF4(8),AGEM(6),
                                    MB1 TO MB8(4),OM1 TO OM5(2)/
                    OPTIONS         6

          860000 SCM, 812000 LCM NEEDED FOR REGRESSION

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

ATTENDANCE OF ALL CHILDREN                                          28/09/77

FILE    SCHOOL    (CREATION DATE = 21/03/77 )    ATTEND IN MANLEY 1871

* * * * * * * * * * * * * * * * * * * * * * MULTIPLE REGRESSION * * * * * * *

DEPENDENT VARIABLE..    PRATIO

MEAN RESPONSE       89.83586       STD. DEV.       32.93589

ATTENDANCE OF ALL CHILDREN                                          28/09/77

FILE    SCHOOL    (CREATION DATE = 21/03/77 )    ATTEND IN MANLEY 1871

* * * * * * * * * * * * * * * * * * * * * * MULTIPLE REGRESSION * * * * * * *

DEPENDENT VARIABLE..    PRATIO

                                  SUMMARY TABLE

STEP   VARIABLE                F TO          SIGNIFICANCE  MULTIPLE R  R SQUARE  R SQUARE  SIMPLE R
       ENTERED    REMOVED      ENTER OR REMOVE                                    CHANGE

  1    T1                        .82131        .365          .00115    .00000    .00000    .00115
       T2                        .01772        .894          .02705    .00073    .00073    .02700
       T4                        .40784        .523          .06343    .00402    .00329    .05579
       T3                       7.28369        .008          .14846    .02204    .01802   -.13951
  2    NVO                      1.71581        .191          .16224    .02632    .00428    .09187
  3    NOFCHIL                  3.25372        .072          .18547    .03444    .00808   -.08563
  4    SV1                      5.13854        .024          .21084    .04702    .01262   -.15562
  5    RATES                     .03941        .843          .21707    .04712    .00010    .06961
  6    R2                        .41318        .521          .21924    .04807    .00095    .02202
       R1                        .94074        .333          .22447    .05039    .00232    .02442
  7    OF1                     33.55277        .000          .35594    .12669    .07631   -.29838
  8    AGEM                      .49842        .481          .35753    .12783    .00114    .02659
  9    MB2                       .06252        .803          .35761    .12788    .00005    .01555
       MB1                       .09391        .759          .35791    .12810    .00021    .01555
 10    OM1                     38.75883        .000          .45694    .20879    .08069   -.15008
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ENROLMENT: Families Lodging within the Kinship group

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 71.09211 STD. DEV. 49.45149

MULTIPLE R	.52280	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.27332	REGRESSION	41.	262007.89106	6390.43419
ADJUSTED R SQUARE	.18644	RESIDUAL	351.	696666.81861	1984.63992
STD DEVIATION	44.54936	COEFF OF VARIABILITY	62.1 PCT		

ATTENDANCE OF ALL CHILDREN 27/09/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

* MULTIPLE REGRESSION * * * * * * * *

DEPENDENT VARIABLE.. PRATIO

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		1.08180	.299	.10557	.01115	.01115	-.10557
	FS6		.99693	.318	.12956	.01679	.00564	-.07332
	FS4		.53329	.466	.13015	.01694	.00015	-.00892
	FS8		2.42506	.120	.13096	.01715	.00021	.01910
	FS3		2.71717	.100	.13162	.01717	.00002	.00965
	FS7		.11663	.733	.16142	.02606	.00889	-.06614
	FS9		46.56608	0.000	.36214	.13114	.10509	.34435
2	SC2		1.87779	.340	.36531	.13345	.00230	-.07332
	SC5		.11548	.734	.36577	.13379	.00034	-.00892
	SC8		.70818	.401	.36880	.13600	.00227	-.10108
	SC6		1.45619	.228	.38782	.15040	.01434	-.23365
	SC7		.37548	.540	.38898	.15124	.00084	-.06726
3	AVO		.38845	.533	.39001	.15211	.00087	.19198
4	NOFCHIL		9.31771	.002	.41534	.17251	.02040	-.32985
5	SV1		3.26210	.072	.42388	.17961	.00710	-.12557
6	RATES		.18458	.668	.42426	.18001	.00040	.05704
7	R2		.18918	.664	.42474	.18041	.00040	-.01887
	R1		.03921	.843	.42484	.18049	.00009	-.04866
8	AGEF		1.34525	.247	.42830	.18344	.00294	-.22222
9	FS6		1.59299	.208	.42979	.18472	.00128	.01534
	FS3		2.97613	.085	.42986	.18473	.00001	-.10186
	FS2		5.27283	.022	.43652	.19036	.00757	-.13824
	FS4		3.17964	.075	.43928	.19296	.00260	-.07697
	FS7		2.92768	.088	.44015	.19373	.00077	-.07284
	FS5		2.63274	.106	.44079	.19429	.00056	-.11772
	FS1		2.76054	.097	.44750	.20033	.00603	-.09409
10	OF3		.21874	.640	.45255	.20382	.00267	-.11871
	OF2		7.59642	.006	.46200	.21344	.01044	.05725
	OF1		2.83630	.093	.46850	.21954	.00610	-.12743
11	AGEM		2.82332	.094	.47490	.22558	.00604	-.28410
12	MS6		.57867	.447	.47496	.22559	.00000	-.02666
	MS4		1.99242	.159	.47778	.22827	.00269	-.35111
	MS5		.51431	.474	.47810	.22864	.00037	-.29372
	MS3		1.04296	.308	.47827	.22875	.00010	-.06442
	MS2		.01733	.633	.47993	.23033	.00158	-.15214
	MS1		1.32386	.251	.48289	.23318	.00285	-.16272
13	OM3		14.85966	.000	.48961	.23972	.00654	-.13105
	OM5		1.36089	.243	.49440	.24469	.00497	.01910
	OM4		.93742	.334	.49685	.24686	.00217	.00094
	OM2		11.56486	.001	.49750	.24751	.00065	-.13517
	OM1		12.46773	.000	.52280	.27332	.02581	-.25297

ENROLMENT: Families lodging outside the kinship group

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 61,29636 STD. DEV. 49,55725

MULTIPLE R	,57616	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUAR
R SQUARE	,33427	REGRESSION	47.	228036,73727	4851,8880
ADJUSTED R SQUARE	,19862	RESIDUAL	231.	454156,32440	1966,2446
STD DEVIATION	44,34016	COEFF OF VARIABILITY	72,3 PCT		

ATTENDANCE OF ALL CHILDREN 27/09/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

* MULTIPLE REGRESSION * * * * * * *

DEPENDENT VARIABLE.. PRATIO

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		,97350	,325	,02805	,00079	,00079	-,02805
	FS4		,49921	,480	,02990	,00089	,00011	,01132
	FS5		1,78794	,182	,11393	,01298	,01209	-,10885
	FS6		2,00821	,154	,12204	,01489	,00191	,04762
	FS7		,36317	,547	,15776	,02489	,01000	-,09836
	FS3		3,05784	,057	,18077	,03585	,00995	,04189
	FS9		45,19071	,000	,40629	,16508	,13923	,36747
2	SC2		5,34200	,022	,42331	,17919	,01411	-,13499
	SC3		1,34453	,247	,43253	,18709	,00790	,00651
	SC5		,12641	,720	,43257	,18712	,00003	-,02755
	SC4		4,16534	,042	,44481	,19786	,01074	-,11282
	SC8		1,97645	,161	,45127	,20365	,00579	-,12003
	SC6		,00750	,430	,45228	,20456	,00091	-,09878
	SC7		,33091	,566	,45338	,20555	,00100	-,09531
3	NVO		1,09527	,194	,45896	,21064	,00509	,00683
4	NUPCHIL		,02552	,873	,45904	,21072	,00008	-,03473
5	SV1		,17091	,674	,45962	,21125	,00053	-,01614
6	RATES		,49958	,480	,46126	,21276	,00151	-,00642
7	R1		,14191	,707	,46168	,21315	,00038	-,04257
	R2		,25754	,612	,46234	,21376	,00061	-,03387
	R3		6,91127	,009	,48469	,23435	,02059	-,10533
8	AGEP		2,08856	,102	,49224	,24230	,00796	-,24162
9	FB3		,04927	,825	,49000	,24601	,00431	-,10204
	FB6		,01289	,910	,50004	,25004	,00343	-,00653
	FB2		1,02524	,312	,50240	,25247	,00242	-,02894
	FB4		,94210	,333	,50478	,25480	,00233	-,01140
	FB5		,05877	,418	,50548	,25551	,00071	-,04002
	FB8		2,41725	,121	,51102	,26175	,00024	,04094
	FB7		,02051	,432	,51300	,26317	,00142	-,06420
	FB1		,20022	,010	,51375	,26394	,00077	-,12700
10	OP3		6,03802	,015	,52502	,27504	,01110	-,15588
	OP2		3,37134	,008	,52741	,27810	,00252	-,10472
	OP1		2,89293	,090	,53534	,28659	,00042	-,07433
11	AGEM		,00130	,971	,53534	,28659	,00000	-,31658
12	MB8		1,59808	,207	,53793	,28937	,00278	-,07435
	MB4		,00797	,436	,53874	,29024	,00087	-,02103
	MB2		,01126	,435	,54223	,29401	,00378	-,03822
	MB3		1,75135	,187	,54449	,29646	,00245	-,18210
	MB6		1,55801	,213	,54559	,29766	,00120	-,08853
	MB7		,37092	,540	,54703	,29924	,00158	-,09913
	MB5		3,40024	,066	,56765	,31433	,01509	-,17397
	MB1		,91869	,341	,56300	,31697	,00264	-,12111

ATTENDANCE OF ALL CHILDREN 27/09/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

13	OM5	,73804	,391	,56329	,31729	,00033	-,05818
	OM4	1,35566	,245	,56335	,31736	,00006	,01614
	OM3	2,13228	,146	,56348	,31751	,00016	-,04256
	OM2	1,17876	,279	,56865	,32337	,00585	-,14176
	OM1	3,78422	,053	,57616	,33427	,01091	-,18911

ATTENDANCE OF ALL CHILDREN 28/09/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

* MULTIPLE REGRESSION * * * * * * * * *

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 71,50283 STD. DEV. 46,04889

VARIABLE FS6 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE OF3 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE OM1 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	,34499	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	,11902	REGRESSION	50.	341220,00699	6824,41214
ADJUSTED R SQUARE	,08519	RESIDUAL	1302.	2525695,85437	1939,85857
STD DEVIATION	44,04383	COEFF OF VARIABILITY	61,6 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		,00759	,931	,00292	,00396	,00396	-,00292
	FS4		,01081	,917	,00353	,00404	,00008	-,00701
	FS5		,01842	,432	,00354	,00404	,00000	,00415
	FS8		,10228	,749	,00715	,00451	,00047	-,01701
	FS7		5,24129	,022	,12489	,01560	,01109	-,09779
	FS3		,23936	,625	,14500	,02120	,00560	-,05660
	FS9		74,39341	,000	,26926	,07250	,05130	,26002
2	T2		,07057	,782	,26970	,07274	,00024	,00108
	T4		2,33037	,127	,27297	,07451	,00177	-,02239
	T3		4,14011	,042	,28528	,08139	,00688	,07753
	T1		,01923	,890	,28531	,08140	,00001	-,11496
3	SC3		2,29055	,130	,28987	,08402	,00262	,04132
	SC5		,20562	,651	,28988	,08403	,00001	-,01068
	SC4		,51015	,435	,28997	,08408	,00005	-,02679
	SC8		2,05071	,152	,29164	,08505	,00097	-,06474
	SC2		,00322	,955	,29168	,08508	,00002	,00414
	SC6		1,56285	,212	,29381	,08632	,00125	-,08238
	SC7		,37678	,539	,29425	,08658	,00026	-,06746
4	NV0		,26084	,606	,29456	,08676	,00018	,11779
5	NOFCHIL		1,12769	,289	,29587	,08754	,00077	-,12581
6	SV1		4,33307	,038	,30083	,09050	,00296	-,10108
7	RATES		,93862	,333	,30189	,09114	,00064	,05703
8	R3		3,07779	,080	,30526	,09318	,00204	-,05846
	R2		3,14242	,077	,30873	,09532	,00213	-,05585
	R1		,01766	,894	,30875	,09533	,00001	-,22839
9	AGEF		,58486	,445	,30946	,09573	,00040	-,13309
10	F60		11,00823	,001	,30946	,09573	,00000	-,01687
	F68		10,05702	,002	,31167	,09714	,00141	,02918
	F65		15,83557	,000	,31199	,09734	,00020	-,01992
	F67		10,85830	,001	,31200	,09734	,00000	-,03528
	F64		18,44452	,000	,31337	,09820	,00086	-,01306
	F63		15,43707	,000	,31345	,09825	,00005	-,02940
	F62		18,13755	,000	,31501	,09923	,00098	-,03337
	F61		16,73507	,000	,33245	,11052	,01129	-,08016
11	OF3		2,52346	,112	,33501	,11223	,00171	,00479
	OF2		,08889	,766	,33514	,11232	,00009	-,03404
	OF1		,00009	,999	,33514	,11232	,00000	-,07488
12	AGEM		3,09119	,079	,33824	,11446	,00208	-,19883

ATTENDANCE OF ALL CHILDREN 28/09/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

13	M66	,09585	,344	,33834	,11447	,00001	-,08967
	M68	,23977	,624	,33836	,11449	,00001	,00292
	M64	1,33281	,249	,33852	,11460	,00011	-,02112
	M67	1,33627	,248	,33869	,11479	,00019	-,02972
	M63	,79246	,374	,33889	,11484	,00006	-,05433
	M65	,78929	,375	,33889	,11485	,00001	-,05354
	M62	,64132	,423	,33979	,11546	,00061	-,07383
	M61	1,54649	,215	,34132	,11650	,00104	-,08895
14	OM4	2,44844	,119	,34251	,11731	,00081	-,01764
	OM5	2,47566	,116	,34413	,11843	,00112	-,02805
	OM3	,39263	,531	,34414	,11843	,00000	-,06613
	OM2	,87319	,350	,34499	,11902	,00059	-,10272

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*SELECT IF      (SUCCLP EQ 0)
REGRESSION      VARIABLES=PRATIO,FS2 TO FS8,FS9,T1 TO T4,SC2 TO SC7,SC8,NVO,SV1,
                AGEF,FB1 TO FB8,OF1 TO OF4,AGEM,MB1 TO MB8,OM1 TO OM5,RATES,
                R1 TO R3,NOFCHIL/
                REGRESSION=PRATIO WITH FS2 TO FS8,FS9(28),T1 TO T4(26),
                SC2 TO SC7,SC8(24),NVO(22),NOFCHIL(20),SV1(18),RATES(16),
                R1 TO R3(14),AGEF(12),FB1 TO FB8(10),OF1 TO OF4(8),AGEM(6),
                MB1 TO MB8(4),OM1 TO OM5(2)/
                OPTIONS         6

  000000 SCM, 012000 LCM NEEDED FOR REGRESSION
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ATTENDANCE OF ALL CHILDREN 28/09/77

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN HANLEY 1871

* MULTIPLE REGRESSION * * * * * * * *

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 50.83000 STD. DEV. 49.42892

MULTIPLE R	.41425	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.17160	REGRESSION	43.	167704.40351	3900.10241
ADJUSTED R SQUARE	.07182	RESIDUAL	357.	809583.02701	2267.73957
STD DEVIATION	47.62079	COEFF OF VARIABILITY	93.8 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		1.37832	.241	.05757	.00331	.00331	-.05757
	FS7		.73393	.392	.07220	.00521	.00190	.04371
	FS8		2.74918	.098	.10893	.01187	.00665	-.08151
	FS6		1.00409	.317	.12070	.01457	.00270	.05272
	FS5		.00721	.932	.12094	.01463	.00006	.00766
	FS3		4.20360	.041	.15620	.02503	.01040	-.10203
2	T3		1.42109	.234	.16814	.02827	.00324	-.05569
	T4		1.21192	.272	.17911	.03208	.00381	-.07774
	T2		1.12030	.291	.18211	.03316	.00108	-.05599
	T1		.69940	.403	.18680	.03489	.00173	.10100
3	NVO		.93716	.334	.19291	.03721	.00232	-.08688
4	NOFCHIL		5.87811	.016	.22712	.05158	.01437	.13700
5	SV1		.00463	.946	.22714	.05159	.00001	.01203
6	RATES		11.55320	.001	.28134	.07915	.02756	-.17693
7	R2		.00685	.436	.28374	.08051	.00135	.03585
	R3		.77876	.378	.28723	.08250	.00200	-.02601
	R1		1.42846	.233	.29311	.08591	.00341	.08373
8	AGEF		3.28965	.071	.30613	.09372	.00780	.10364
9	FB8		.88938	.346	.30616	.09373	.00002	-.00981
	FB4		3.45511	.064	.30618	.09375	.00001	-.00959
	FB2		4.14860	.042	.30879	.09535	.00161	.05002
	FB5		4.00935	.044	.31107	.09676	.00141	.00660
	FB6		5.90088	.016	.32258	.10405	.00729	.04595
	FB1		2.73219	.099	.32281	.10421	.00015	-.06603
	FB7		2.13107	.145	.33167	.11014	.00593	-.02492
	FB3		4.35052	.038	.34696	.12038	.01025	.06620
10	OF2		.48773	.485	.34851	.12146	.00108	.01046
	OF1		5.90095	.016	.36915	.13627	.01481	.13952
	OF3		1.67891	.196	.37438	.14016	.00389	-.08773
11	AGEM		.71291	.399	.37688	.14181	.00165	.09553
12	MB8		.41744	.519	.37727	.14233	.00052	.02014
	MB5		.33923	.561	.37952	.14403	.00170	.03942
	MB2		1.00743	.362	.38315	.14681	.00277	-.02774
	MB4		1.15391	.283	.38836	.15082	.00401	-.03138
	MB1		.65700	.418	.38863	.15104	.00022	.01059
	MB8		.47916	.489	.39206	.15420	.00316	.04371
	MB7		.91184	.340	.39442	.15557	.00137	-.02882
	MB3		.53471	.465	.39688	.15681	.00125	.05927
13	OM3		.54841	.459	.39755	.15804	.00123	.01728
	OM2		.66177	.416	.40178	.16143	.00338	.05536
	OM8		.29872	.598	.40275	.16221	.00078	.02811
	OM4		2.99303	.084	.41419	.17156	.00935	.08776
	OM1		.02125	.884	.41425	.17160	.00005	-.00813

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ATTENDANCE OF ALL CHILDREN                                          28/09/77

                *SELECT IF      (SOCCLF EQ 1 OR SOCCLF EQ 2 OR SOCCLF EQ 3 OR SOCCLF EQ 4)
                REGRESSION      VARIABLES=PRATIO,FS2 TO FS8,FS9,T1 TO T4,SC2 TO SC7,SC8,NVO,SV1,
                                AGEF,FB1 TO FB8,OF1 TO OF4,AGEM,MB1 TO MB8,OM1 TO OM5,RATES,
                                R1 TO R3,NOFCHIL/
                                REGRESSION=PRATIO WITH FS2 TO FS8,FS9(28),T1 TO T4(26),
                                SC2 TO SC7,SC8(24),NVO(22),NOFCHIL(20),SV1(18),RATES(16),
                                R1 TO R3(14),AGEF(12),FB1 TO FB8(10),OF1 TO OF4(8),AGEM(6),
                                MB1 TO MB8(4),OM1 TO OM5(2)/
                OPTIONS         6

        000000 SCM, 012000 LCM NEEDED FOR REGRESSION
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DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE	64,46530	STD. DEV.	50,13436		
MULTIPLE R	,41802	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	,17474	REGRESSION	41,	162500,52799	3963,57385
ADJUSTED R SQUARE	,07190	RESIDUAL	329,	767471,49336	2332,74016
STD DEVIATION	48,29845	COEFF OF VARIABILITY	74,9 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS3		2,34974	,126	,07796	,00608	,00608	,07796
	FS5		,01360	,907	,07813	,00610	,00003	,00393
	FS8		1,08232	,299	,09501	,00903	,00292	,05158
2	T3		,52258	,470	,11552	,01334	,00432	-,06696
	T2		,40027	,496	,11666	,01338	,00004	,00270
	T4		,22274	,637	,10062	,02577	,01238	-,09855
	T1		,02430	,430	,16565	,02744	,00167	,06218
3	SC3		,47038	,493	,19198	,03686	,00942	-,09926
	SC2		,71616	,398	,20359	,04145	,00459	,07727
	SC4		,00913	,924	,20366	,04147	,00002	,02192
4	NVO		,78990	,375	,20870	,04358	,00210	-,05853
5	NOFCHIL		10,15564	,002	,26450	,06996	,02638	,17434
6	SV1		,33398	,564	,26014	,07083	,00087	-,00071
7	RATES		,50742	,477	,26062	,07215	,00132	,02301
8	R3		,49444	,482	,27092	,07340	,00125	,03688
	R2		3,23110	,073	,28597	,08178	,00838	,05222
9	AGEF		1,40254	,237	,29226	,08541	,00363	,13998
10	FB6		,54390	,461	,30028	,09017	,00475	,00515
	FB4		,29711	,586	,30109	,09065	,00048	-,01732
	FB7		,18862	,664	,30149	,09090	,00025	-,00295
	FB3		,14898	,700	,30152	,09091	,00002	-,00499
	FB8		1,53734	,216	,31103	,09674	,00583	,00222
	FB2		,18321	,669	,33319	,11101	,01427	,09850
	FB5		1,48630	,224	,34927	,12199	,01098	-,14564
	FB1		,07984	,778	,34956	,12219	,00020	,03207
11	OF2		1,29329	,256	,35379	,12517	,00297	-,00713
	OF3		1,97337	,161	,36075	,13014	,00497	-,03020
	OF1		,06532	,798	,36098	,13030	,00017	,03596
12	AGEM		10,75968	,001	,39011	,15691	,02660	,08962
13	MB8		,62456	,430	,40189	,16151	,00461	-,06696
	MB3		,14631	,702	,40344	,16277	,00125	-,01866
	MB6		1,72001	,191	,41060	,16859	,00582	,07406
	MB4		,13062	,718	,41231	,17000	,00141	-,03514
	MB5		,20987	,648	,41289	,17048	,00048	-,07884
	MB2		,35411	,552	,41369	,17064	,00016	,02116
	MB7		,10950	,664	,41369	,17064	,00000	-,00295
	MB1		,30501	,581	,41401	,17140	,00076	,03190
14	OM3		,20975	,647	,41587	,17295	,00155	-,03709
	OM5		,00729	,436	,41706	,17444	,00149	,03688
	OM2		,11579	,734	,41796	,17469	,00025	,02193
	OM1		,01989	,888	,41802	,17474	,00005	-,05092

ENROLMENT: FAMILIES IN MULTIPLE OCCUPANCY

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 64,05814 STD. DEV. 49,61509

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	,27361	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	,07486	REGRESSION	52.	404500,89043	7778,86328
ADJUSTED R SQUARE	,05241	RESIDUAL	2143.	499883/,13199	2332,63515
STD DEVIATION	48,29736	COEFF OF VARIABILITY	75,4 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		,00531	,942	,02412	,00058	,00058	-,02412
	FS6		3,84135	,050	,05082	,00258	,00200	-,04440
	FS4		,38093	,583	,05346	,00286	,00028	-,01603
	FS8		1,53136	,216	,05563	,00309	,00024	,01607
	FS5		,03658	,848	,05586	,00335	,00025	-,01473
	FS3		,09056	,764	,05870	,00345	,00010	-,00782
	FS7		4,78802	,029	,08791	,00773	,00428	-,06273
	FS9		94,06655	,000	,22056	,04865	,04092	,20968
2	T2		,11244	,737	,22081	,04876	,00011	,00123
	T4		,87029	,351	,22528	,05075	,00199	-,02493
	T3		1,18798	,276	,23412	,05481	,00406	,07519
	T1		,09190	,762	,23421	,05485	,00004	-,05714
3	SC3		,06878	,352	,23432	,05491	,00005	-,01345
	SC4		2,93941	,087	,23546	,05591	,00101	-,03978
	SC5		1,15303	,283	,23669	,05602	,00011	-,02036
	SC2		,40194	,526	,23671	,05603	,00001	-,00500
	SC6		3,48485	,062	,24358	,05933	,00330	-,07711
	SC8		,58093	,446	,24365	,05937	,00003	-,02252
	SC7		,50229	,479	,24410	,05956	,00022	-,02466
4	NVO		1,04362	,307	,24562	,06003	,00045	,05650
5	NOFCHIL		2,61081	,094	,24749	,06125	,00122	-,04231
6	SV1		,31716	,573	,24777	,06139	,00014	-,04066
7	RATES		,13810	,718	,24788	,06144	,00006	,01217
8	R3		,04521-	,358	,24853	,06177	,00032	-,02137
	R2		1,25776	,262	,24952	,06226	,00049	-,03413
	R1		1,64531	,200	,25094	,06297	,00071	-,02956
9	AGEF		9,65402	,002	,25969	,06713	,00415	-,08215
10	F56		1,25928	,262	,26060	,06791	,00079	-,03237
	F46		,43713	,509	,26189	,06859	,00067	,01595
	F45		,15767	,810	,26253	,06892	,00034	-,04344
	F64		,00271	,959	,26254	,06893	,00001	-,02540
	F62		,05960	,807	,26275	,06904	,00011	-,01288
	F57		,05377	,817	,26315	,06925	,00021	-,04217
	F63		,00114	,973	,26321	,06928	,00003	-,03058
	F61		,02215	,882	,26323	,06929	,00001	-,03205
11	OF3		,18981	,663	,26348	,06942	,00013	-,04710
	OF2		,03586	,850	,26402	,06971	,00029	-,02227
	OF1		,70049	,403	,26459	,07001	,00030	-,00181
12	AGEM		,29596	,587	,26483	,07014	,00013	-,14117

ATTENDANCE OF ALL CHILDREN 28/09/77 P

STEP	SCHOOL (CREATION DATE = 21/03/77)		ATTEND IN HANLEY 1871				
13	M58	,53671	,464	,26536	,07041	,00028	-,02476
	M54	,15748	,692	,26784	,07174	,00132	,00724
	M52	,03266	,857	,26785	,07174	,00001	-,03487
	M55	,09746	,755	,26792	,07178	,00004	-,00048
	M53	,34986	,554	,26983	,07281	,00103	-,00837
	M56	,00538	,770	,26998	,07289	,00008	-,00110
	M57	,00006	,994	,26999	,07289	,00001	-,03834
	M51	,00461	,945	,26999	,07290	,00000	-,04634
14	O43	,00753	,931	,27075	,07330	,00041	-,03923
	O44	2,43271	,119	,27178	,07386	,00056	,00939
	O45	2,24960	,137	,27280	,07442	,00056	-,00348
	O42	,00491	,438	,27281	,07443	,00001	-,03840
	O41	1,44019	,316	,27361	,07486	,00043	-,10163

ENROLMENT: FAMILIES IN SINGLE OCCUPANCY

DEPENDENT VARIABLE.. PRATIO

MEAN RESPONSE 68.57641 STD. DEV. 44.37346

VARIABLE FS6 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

VARIABLE OF4 IS A CONSTANT. INCLUSION LEVEL SET TO ZERO.

FINAL STEP.

MULTIPLE R	.19212	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.03691	REGRESSION	51.	168220.27411	3298.51514
ADJUSTED R SQUARE	.01453	RESIDUAL	2195.	4259157.51769	1940.39067
STD DEVIATION	44.04987	COEFF OF VARIABILITY	64.2 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	FS2		.00052	.982	.00376	.00001	.00001	-.00376
	FS4		1.05159	.305	.02145	.00046	.00045	.02114
	FS8		.44195	.506	.02618	.00069	.00023	-.01500
	FS7		2.99334	.084	.04654	.00216	.00148	-.03827
	FS5		.10285	.749	.04670	.00218	.00002	.00503
	FS3		.05091	.822	.04727	.00223	.00005	-.04668
	FS9		24.25301	.000	.11376	.01293	.01069	.14458
2	T2		.00063	.977	.11836	.01399	.00107	.02834
	T4		.01540	.901	.11903	.01417	.00017	.01455
	T3		4.16440	.042	.12403	.01553	.00137	-.02218
	T1		1.18647	.276	.12671	.01606	.00052	-.08259
3	SC3		.39628	.528	.13735	.01886	.00281	-.05305
	SC8		.09267	.761	.14287	.02041	.00155	-.04243
	SC4		1.90430	.168	.14379	.02067	.00026	.01968
	SC5		2.28808	.131	.14599	.02131	.00064	.02655
	SC2		3.21123	.073	.14926	.02228	.00097	.03319
	SC6		1.05308	.305	.14926	.02228	.00000	-.00535
	SC7		1.13084	.288	.15091	.02277	.00050	-.00786
4	NVO		.45543	.500	.15157	.02297	.00020	.09047
5	NOFCHIL		1.90813	.167	.15431	.02381	.00084	-.01697
6	SV1		.07358	.786	.15441	.02384	.00003	-.05237
7	RATES		.04664	.829	.15448	.02386	.00002	.02901
8	R2		.00017	.990	.15448	.02386	.00000	-.00293
	R3		4.18277	.041	.16036	.02572	.00185	-.04326
	R1		.21348	.644	.16065	.02581	.00009	.00371
9	AGEF		.02414	.887	.16068	.02582	.00001	-.02836
10	F16		.19913	.656	.16085	.02587	.00006	.00359
	F36		.02970	.863	.16289	.02653	.00066	-.02761
	F45		.05595	.813	.16296	.02656	.00002	-.01172
	F64		.01751	.895	.16362	.02677	.00021	-.01737
	F67		.49479	.484	.16949	.02873	.00196	-.04417
	F62		.13701	.711	.16964	.02878	.00005	.00000
	F53		.03148	.859	.17191	.02955	.00078	-.01742
	F61		.37503	.540	.17239	.02972	.00016	.04094
11	OF3		.19752	.657	.17286	.02988	.00016	-.02959
	OF2		.15043	.698	.17288	.02989	.00001	-.01678
	OF1		.28299	.595	.17324	.03001	.00012	.02000
12	AGEM		.33063	.502	.17367	.03016	.00015	-.04067

ATTENDANCE OF ALL CHILDREN 28/09/77 P

FILE SCHOOL (CREATION DATE = 21/03/77) ATTEND IN MANLEY 1871

13	MB8	.36388	.547	.17377	.03020	.00004	-.00288
	MB5	.00086	.977	.17877	.03196	.00176	.03554
	MB2	.57009	.450	.17910	.03206	.00012	-.02100
	MB4	.47000	.490	.17912	.03208	.00001	-.01411
	MB3	.87158	.351	.18205	.03314	.00106	-.04171
	MB6	.20573	.646	.18205	.03314	.00000	-.01735
	MB7	2.49399	.115	.18824	.03544	.00229	-.07266
	MB1	.20724	.649	.18848	.03553	.00009	.03903
14	OM5	.07889	.779	.18867	.03560	.00007	.00478
	OM3	.00262	.959	.18984	.03604	.00044	.01455
	OM4	.14583	.745	.18993	.03607	.00003	-.00285
	OM2	.43841	.508	.19054	.03631	.00023	.01473
	OM1	1.37601	.241	.19212	.03691	.00062	-.05986

ATTENDANCE

Northwood Boys School: All pupils

DEPENDENT VARIABLE.. ATTEND

MEAN RESPONSE 114.48295 STD. DEV. 85.76437

MULTIPLE R	.48629	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.23648	REGRESSION	60.	610535.11852	10175.58518
ADJUSTED R SQUARE	.07965	RESIDUAL	291.	1971254.78721	6774.07143
STD DEVIATION	82.30475	COEFF OF VARIABILITY	71.9 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		3.96782	.047	.10586	.01121	.01121	.10586
2	FAMPOS		6.85738	.014	.16756	.02808	.01687	.11037
3	SIBPOS		4.69778	.031	.20254	.04102	.01295	.02611
4	F88		1.00274	.317	.20965	.04395	.00293	-.05639
	F86		.39955	.528	.21205	.04497	.00101	.02089
	F83		3.89719	.049	.23621	.05580	.01083	.10264
	F85		.37847	.539	.23852	.05689	.00109	.01296
	F87		.64903	.421	.24229	.05870	.00181	-.02109
	F82		.27408	.601	.24384	.05946	.00075	-.02149
	F89		.52630	.469	.24679	.06091	.00145	.01142
5	T2		3.94846	.048	.24733	.06117	.00026	-.00789
	T4		7.10933	.008	.27331	.07470	.01353	-.11478
	T3		1.50158	.221	.28822	.08307	.00837	.05370
	T1		4.41881	.036	.30812	.09494	.01187	-.01798
6	AGEC		15.69654	.000	.36787	.13533	.04039	-.22725
7	SC3		.00000	1.000	.38035	.14467	.00934	.08536
	SC8		3.28874	.071	.38054	.14481	.00014	-.02450
	SC5		1.12645	.289	.39016	.15222	.00741	.12713
	SC4		3.37815	.067	.39037	.15239	.00017	.02764
	SC6		3.55706	.060	.39037	.15239	.00000	.01790
	SC7		3.78614	.053	.40250	.16200	.00961	-.07945
8	NVD		1.58743	.209	.40747	.16603	.00402	-.06434
9	B6		.21297	.645	.40944	.16764	.00161	-.05294
	B5		.62865	.428	.42216	.17822	.01058	-.08343
	B3		.06274	.802	.42235	.17838	.00016	-.05493
	B2		.01939	.889	.42307	.17899	.00061	.05452
	B4		.03569	.850	.42308	.17899	.00000	.01843
	B8		.16521	.685	.42357	.17941	.00042	-.05427
	B1		.04249	.837	.42378	.17952	.00011	.02597
10	SV1		.19747	.657	.42429	.18003	.00050	-.04906
11	AGEF		1.49338	.223	.42876	.18383	.00381	.22486
12	F82		.01838	.892	.43337	.18781	.00397	.09122
	F86		1.59835	.207	.43448	.18870	.00089	-.09458
	F85		2.55815	.111	.43803	.19240	.00370	-.06146
	F84		.87525	.350	.43965	.19329	.00090	-.03098
	F83		1.75943	.186	.44464	.19771	.00441	-.21821
	F87		.03761	.846	.44475	.19788	.00018	-.02336
13	OF4		.59114	.443	.44602	.19893	.00113	.23622
	OF3		.00873	.979	.44618	.19901	.00007	.22693
	OF2		.01997	.888	.44655	.19941	.00040	-.11493
	OF1		.56537	.453	.44818	.20087	.00146	.07524
14	AGEM		.03211	.858	.44827	.20095	.00008	-.03293

ATTENDANCE OF ALL CHILDREN 14/12/77

FILE	SCHOOL (CREATION DATE = 14/12/77)		ATTEND IN MANLEY 1871				
15	MB7	.17993	.672	.44924	.20182	.00087	-.04412
	MB4	.00818	.992	.44978	.20228	.00046	.03517
	MB3	.02602	.870	.45923	.21089	.00862	.07745
	MB5	.05811	.810	.45945	.21110	.00020	-.06550
	MB2	.06461	.800	.45971	.21133	.00024	.02254
	MB8	.00000	1.000	.45978	.21140	.00006	-.01322
	MB6	.00837	.927	.46266	.21350	.00210	-.02304
	MB1	.05153	.821	.46221	.21364	.00013	-.07187
16	OM5	1.97823	.161	.47677	.22731	.01368	.12568
	OM4	.24845	.619	.47848	.22894	.00163	.06596
	OM2	.00914	.924	.47853	.22899	.00004	-.00869
	OM3	.07698	.782	.47981	.22945	.00046	.03118
	OM1	.00183	.966	.47981	.22945	.00000	-.09019
17	RATES	1.93744	.165	.48423	.23448	.00503	.10878
18	R3	.02188	.882	.48426	.23451	.00003	-.01381
	R2	.23887	.631	.48495	.23518	.00067	-.05213
	R1	.39244	.532	.48601	.23620	.00103	.00387
19	DIST	.10393	.747	.48629	.23648	.00027	.00244

ATTENDANCE

Northwood Boys' School: Full-time scholars

DEPENDENT VARIABLE.. ATTEND

MEAN RESPONSE 124.48134 STD. DEV. 98.64618

MULTIPLE R	.52171	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.27219	REGRESSION	60.	597139.46565	9952.3244
ADJUSTED R SQUARE	.06123	RESIDUAL	207.	1596727.44086	7713.6591
STD DEVIATION	87.82744	COEFF OF VARIABILITY	70.6 PCT		

— SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		1.42965	.233	.07312	.00535	.00535	.07312
2	FAMPOS		3.72168	.055	.13828	.01912	.01378	.10685
3	SIGPOS		3.79435	.052	.18171	.03302	.01390	.01435
4	FS8		1.81533	.315	.19237	.03701	.00399	-.06797
	F86		.24754	.619	.19436	.03777	.00077	.01591
	FS3		6.44459	.012	.24712	.06107	.02329	.15084
	FS7		.78259	.377	.25315	.06408	.00302	-.03467
	FS5		.02689	.870	.25329	.06416	.00007	-.01078
	FS2		.13959	.709	.25426	.06466	.00050	.04372
	FS9		.00926	.923	.25435	.06469	.00003	-.00562
5	T2		2.69898	.098	.25474	.06489	.00020	-.00777
	T4		3.90516	.049	.26418	.06979	.00490	-.09190
	T3		1.45028	.230	.27320	.07464	.00485	.02665
	T1		3.55329	.061	.29573	.08746	.01282	-.01512
6	AGEC		9.15119	.003	.34559	.11943	.03198	-.17618
7	SC3		.00013	.991	.35993	.12955	.01012	.08097
	SC8		1.12080	.291	.36339	.13205	.00250	.03483
	SC5		.92437	.337	.37474	.14043	.00838	.11114
	SC4		3.57074	.060	.37707	.14218	.00175	-.00638
	SC6		2.38899	.123	.37894	.14360	.00142	.04685
	SC7		3.31294	.070	.39367	.15498	.01138	-.13546
8	NVO		1.99835	.159	.40226	.16182	.00684	-.09147
9	B6		.20578	.651	.40431	.16347	.00165	-.07743
	B3		.17407	.677	.40677	.16546	.00200	-.03844
	B5		.86635	.353	.42987	.18479	.01932	-.12782
	B2		.00385	.951	.43439	.18869	.00391	.07937
	B4		.05125	.821	.43439	.18870	.00001	.00839
	B8		.21399	.644	.43522	.18942	.00072	-.06851
	B1		.05176	.820	.43543	.18960	.00018	.03546
10	SV1		.00049	.349	.43886	.19260	.00300	-.07123
11	AGEF		.69385	.406	.44155	.19496	.00237	-.00723
12	F82		.40437	.525	.45258	.20483	.00986	.14415
	F86		1.66159	.199	.45451	.20658	.00175	-.13174
	F84		2.90795	.089	.46199	.21343	.00685	-.07969
	F85		1.04160	.309	.46426	.21553	.00210	-.07628
	F83		.98197	.323	.46775	.21879	.00326	.01522
	F87		.02479	.875	.46784	.21887	.00008	-.03212
13	OF3		.22294	.637	.46803	.21906	.00018	.03543
	OF4		.19629	.658	.46826	.21927	.00022	.02973
	OF1		1.58954	.220	.47445	.22511	.00583	.11194
	OF2		.18667	.744	.47484	.22547	.00037	-.16809
14	AGEM		.06900	.793	.47509	.22571	.00024	-.02895

ATTENDANCE OF ALL CHILDREN 12/01/78

FILE	SCHOOL (CREATION DATE = 10/01/78) ATTEND IN MANLEY 1871					
15	MB7	.14177	.707	.47008	.22665	.00095	-.05748
	MB4	.66890	.414	.47758	.22800	.00135	.01673
	MB2	.35426	.552	.47825	.22873	.00072	.07917
	MB5	.52265	.470	.47825	.22873	.00000	-.09394
	MB3	.92682	.337	.49413	.24416	.01544	.08081
	MB8	.24318	.622	.49416	.24420	.00004	-.02394
	MB6	.02193	.866	.50161	.25162	.00742	-.05371
	MB1	.26251	.609	.50251	.25252	.00090	-.08436
16	OM5	.58335	.479	.51212	.26227	.00975	.12149
	OM4	.08682	.769	.51226	.26241	.00014	.04447
	OM2	.07189	.790	.51248	.26263	.00022	-.05116
	OM3	.00880	.925	.51257	.26273	.00009	.01223
	OM1	.84196	.838	.51271	.26287	.00015	-.05168
17	RATES	1.15933	.283	.51662	.26698	.00423	.09828
18	R3	.08156	.775	.51678	.26706	.00010	-.02936
	R2	.16381	.687	.51749	.26780	.00073	-.06838
	R1	1.21785	.271	.52159	.27206	.00426	.03753
19	DIST	.03714	.847	.52171	.27219	.00013	-.02068

ATTENDANCE: NORTHWOOD BOYS' SCHOOL: HALF-TIME PUPILS

* MULTIPLE REGRESSION * * * * * * * *

DEPENDENT VARIABLE.. ATTEND

MEAN RESPONSE 82.58333 STD. DEV. 57.62931

MULTIPLE R	.70600	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE
R SQUARE	.49844	REGRESSION	43.	137396.89650	3195.25814
ADJUSTED R SQUARE	-.04475	RESIDUAL	40.	138258.31817	3456.45795
STD DEVIATION	58.79105	COEFF OF VARIABILITY	71.2 PCT		

SUMMARY TABLE

STEP	VARIABLE ENTERED	VARIABLE REMOVED	F TO ENTER OR REMOVE	SIGNIFICANCE	MULTIPLE R	R SQUARE	R SQUARE CHANGE	SIMPLE R
1	PRATIO		.98760	.323	.10939	.01190	.01190	.10939
2	FAMPOS		.00009	.992	.10939	.01190	.00000	-.34276
3	SIBPOS		.38771	.535	.12910	.01667	.00477	-.06613
4	FS3		.73596	.394	.17096	.02923	.01256	-.10382
	FS5		1.05444	.308	.22291	.04969	.02046	.13240
	FS2		2.53786	.115	.27157	.07375	.02406	-.24473
	FS9		2.38946	.126	.31935	.10198	.02823	.16751
5	T2		.00161	.968	.31936	.10199	.00001	-.00023
	T4		.27669	.600	.35069	.12299	.02100	-.16546
	T3		1.85138	.178	.38037	.14468	.02169	.21874
6	AGEC		.04062	.841	.38100	.14516	.00048	.07490
7	SC5		6.33179	.014	.45712	.20896	.06380	-.23263
	SC4		3.36602	.071	.49986	.24986	.04090	.19816
	SC6		1.89058	.174	.51949	.26987	.02001	-.09838
8	NVG		.39988	.529	.52358	.27414	.00427	.04194
9	B5		2.26614	.137	.54383	.29575	.02161	.15792
	B4		.23425	.630	.54511	.29714	.00139	.04612
	B1		.21914	.641	.54526	.29731	.00017	-.01658
	B3		.42873	.515	.54953	.30198	.00468	-.05871
10	SV1		.16148	.689	.55115	.30377	.00178	.09267
11	AGEF		.06736	.796	.55184	.30452	.00076	.07387
12	FB6		.41754	.521	.55184	.30453	.00001	-.00282
	FB5		1.32235	.255	.55864	.31208	.00755	-.02189
	FB4		3.90650	.053	.58984	.34791	.03583	.17964
	FB3		.00585	.939	.59663	.35596	.00805	-.09433
	FB1		1.62189	.208	.61138	.37378	.01782	.05679
13	OF3		2.73145	.104	.63901	.40833	.03455	-.12563
	OF2		.09604	.758	.63922	.40861	.00028	.07572
	OF1		.07974	.779	.63991	.40948	.00087	.07865
14	AGEM		.05793	.811	.64041	.41012	.00064	-.12350
15	MB5		.00067	.980	.64369	.41434	.00421	-.08718
	MB3		.22995	.634	.64731	.41901	.00467	-.21656
	MB4		.17125	.681	.65073	.42345	.00444	.02017
	MB6		.01400	.906	.65079	.42352	.00008	-.03734
	MB2		.19554	.660	.67386	.45408	.03056	-.05163
	MB1		.00947	.923	.67394	.45419	.00011	.03614
16	OM4		1.11082	.298	.69101	.47750	.02331	.24415
	OM2		.54515	.464	.69591	.48429	.00679	.11385
	OM5		.14351	.707	.69664	.48531	.00102	.14067
	OM1		.06324	.803	.69719	.48607	.00076	-.19542
17	RATES		.01086	.918	.69728	.48620	.00013	.00577
18	R1		.01307	.921	.69737	.48633	.00013	-.13458
19	DIST		.96564	.332	.70600	.49844	.01211	.02534

APPENDIX E

Attendance at Northwood Boys' School: Weekly Averages

	Week Ending		Average Attendance
1869	August	20	183
		27	191
	September	3	197
		10	206
		17	216
		24	192
	October	1	203
		8	208
		15	213
		22	207
		29	-
	November	5	204
		12	199
		19	-
		26	205
	December	3	198
		10	-
		17	202
1870	January	15	196
		21	202
		28	203
	February	4	215
		11	209
		18	198
		25	-

Week ending		Average Attendance
April	1	218
	8	206
	15	208
	22	-
	29	223
May	6	218
	13	223
	20	263
	27	242
June	3	241
	10	-
	17	221
	24	233
July	1	-
	8	222
	15	-
	22	215
	29	202
August	5	-
	12	-
	19	-
	26	209
September	2	222
	9	217
	16	225
	23	211

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Week ending		Average Attendance
March	4	179
	11	208
	18	212
	25	220
November	4	217
	11	221
	18	212
	25	215
December	2	241
	9	222
	16	202
	30	-
October	7	240
	14	256
	21	222
	28	-